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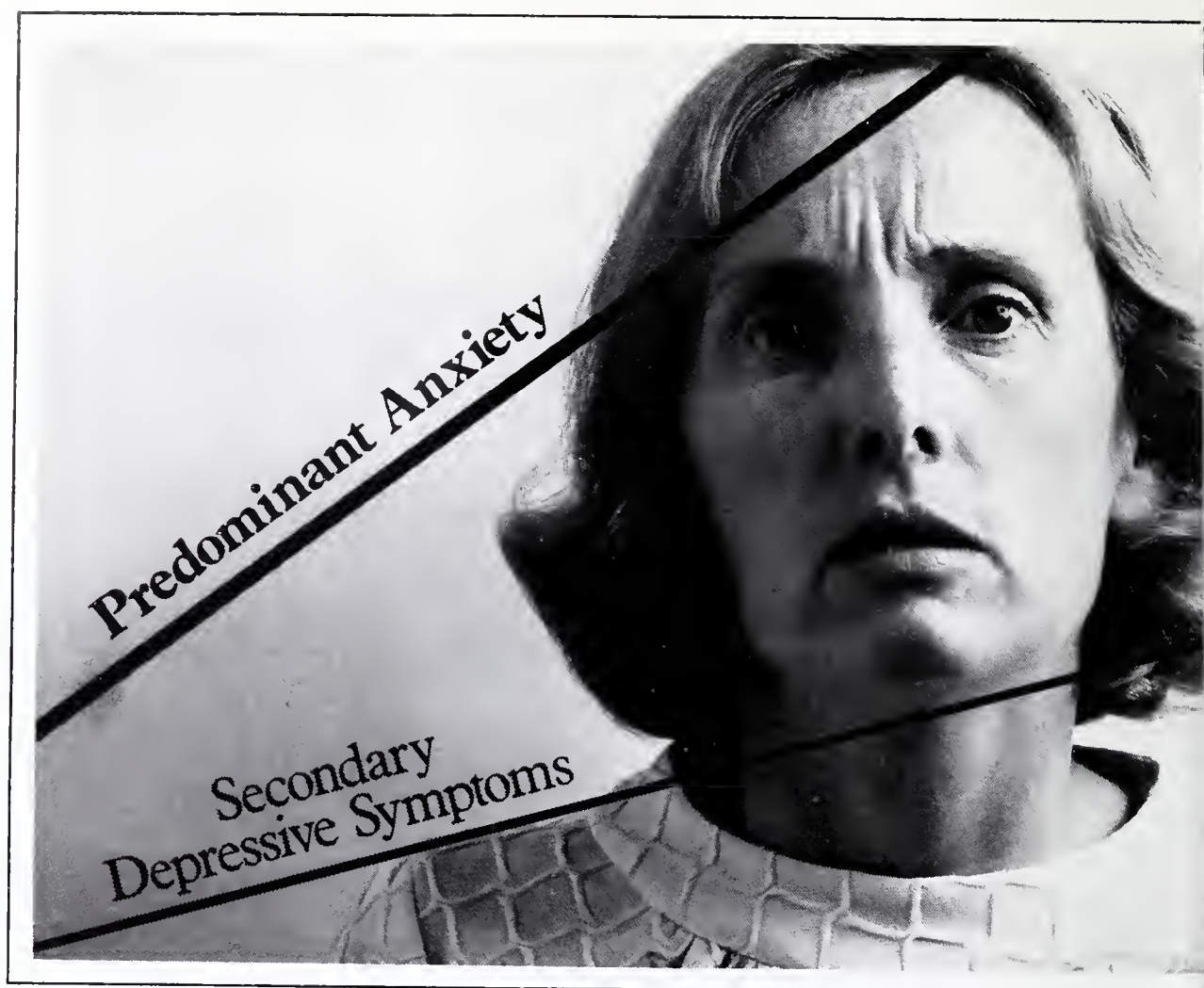
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# HAWAII MEDICAL JOURNAL

VOLUME 33 / NUMBER 1 • JANUARY 1974







# This psychoneurotic often responds

Before prescribing, please consult complete product information, a summary of which follows:

**Indications:** Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive dis-

orders (not for sole therapy).

**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant

medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.



When you determine that the depressive symptoms are associated with or secondary to predominant anxiety in the psychoneurotic patient, consider Valium (diazepam) in addition to reassurance and counseling, for the psychotherapeutic support it provides. As anxiety is relieved, the depressive symptoms referable to it are also often relieved or reduced.

The beneficial effect of Valium is usually pronounced and rapid. Improvement generally becomes evident within a few days, although

some patients may require a longer period. Moreover, Valium (diazepam) is generally well tolerated. Side effects most commonly reported are drowsiness, ataxia and fatigue. Caution your patients against engaging in hazardous occupations or driving.

Frequently, the patient's symptoms are greatly intensified at bedtime. In such situations, Valium offers an additional advantage: adding an *h.s.* dose to the *b.i.d.* or *t.i.d.* schedule can relieve the anxiety and thus may encourage a more restful night's sleep.

# symptom complex to Valium<sup>®</sup> (diazepam)

**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal

or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred

vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



Roche Laboratories  
Division of Hoffmann-La Roche Inc.  
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**Valium<sup>®</sup>** 2-mg, 5-mg, 10-mg tablets  
(diazepam)

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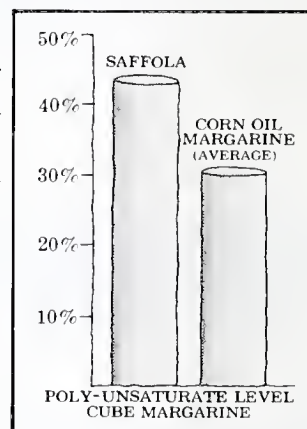


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isn't always easy.



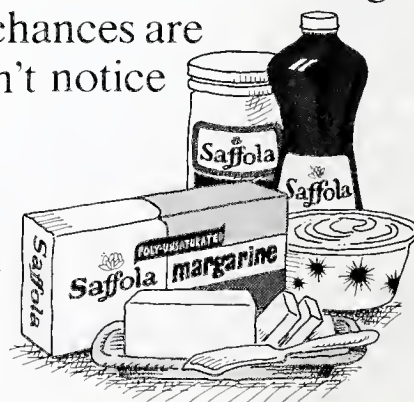
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Cover: One of a series of original etchings prepared by Dr. Gerrit Parmele Judd, surgeon to the Hawaiian Mission, who lived in the islands from 1828-1873. This etching appears in *ANATOMIA* a book illustrated by Dr. Judd, written by him in Hawaiian and printed at Lahainaluna in 1838.



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PREMARIN (Conjugated Estrogens  
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## BRIEF SUMMARY

(For full prescribing information, see package circular.)

### PREMARIN®

(Conjugated Estrogens Tablets, U.S.P.)

**Indications:** Based on a review of PREMARIN Tablets by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications for use as follows:

**Effective:** As replacement therapy for naturally occurring or surgically induced estrogen deficiency states associated with: the climacteric, including the menopausal syndrome and postmenopause; senile vaginitis and kraurosis vulvae, with or without pruritus. **"Probably" effective:** For estrogen deficiency-induced osteoporosis, and only when used in conjunction with other important therapeutic measures such as diet, calcium, physiotherapy, and good general health-promoting measures. Final classification of this indication requires further investigation.

**Contraindications:** Short acting estrogens are contraindicated in patients with (1) markedly impaired liver function; (2) known or suspected carcinoma of the breast, except those cases of progressing disease not amenable to surgery or irradiation occurring in women who are at least 5 years postmenopausal; (3) known or suspected estrogen-dependent neoplasia, such as carcinoma of the endometrium; (4) thromboembolic disorders, thrombophlebitis, cerebral embolism, or in patients with a past history of these conditions; (5) undiagnosed abnormal genital bleeding. **Warnings:** Estrogen therapy should not be given to women with recurrent chronic mastitis or abnormal mammograms except, if in the opinion of the physician, it is warranted despite the possibility of aggravation of the mastitis or stimulation of undiagnosed estrogen-dependent neoplasia.

The physician should be alert to the earliest manifestations of thrombotic disorders (thrombophlebitis, retinal thrombosis, cerebral embolism and pulmonary embolism).

If these occur or are suspected, estrogen therapy should be discontinued immediately.

Estrogens may be excreted in the mother's milk and an estrogenic effect upon the infant has been described. The long range effect on the nursing infant cannot be determined at this time.

Hypercalcemia may occur in as many as 15 percent of breast cancer patients with metastases, and this usually indicates progression of bone metastases. This occurrence depends neither on dose nor on immobilization. In the presence of progression of the cancer or hypercalcemia, estrogen administration should be stopped.

A statistically significant association has been reported between maternal ingestion of diethylstilbestrol during pregnancy and the occurrence of vaginal carcinoma in the offspring. This occurred with the use of diethylstilbestrol for the treatment of threatened abortion or high risk pregnancies. Whether or not such an association is applicable to all estrogens is not known at this time. In view of this finding, however, the use of any estrogen in pregnancy is not recommended.

Failure to control abnormal uterine bleeding or unexpected recurrence is an indication for curettage.

**Precautions:** As with all short acting estrogens, the following precautions should be observed:

A complete pretreatment physical examination should be performed with special reference to pelvic and breast examinations.

To avoid prolonged stimulation of the endometrium and breasts in climacteric or hypogonadal women, estrogens should be administered cyclically (3 week regimen with 1 week rest period—withdrawal bleeding may occur during rest period).

Because of individual variation in endogenous estrogen production, relative overdosage may occur which could cause undesirable effects such as abnormal or excessive uterine bleeding, mastodynia and edema.

Because of salt and water retention associated with estrogenic anabolic activity, estrogens

should be used with caution in patients with epilepsy, migraine, asthma, cardiac, or renal disease.

If unexplained or excessive vaginal bleeding should occur, reexamination should be made for organic pathology.

Pre-existing uterine fibromyomata may increase in size while using estrogens; therefore, patients should be examined at regular intervals while receiving estrogenic therapy.

The pathologist should be advised of estrogen therapy when relevant specimens are submitted.

Because of their effects on epiphyseal closure, estrogens should be used judiciously in young patients in whom bone growth is incomplete.

Prolonged high dosages of estrogens will inhibit anterior pituitary functions. This should be borne in mind when treating patients in whom fertility is desired.

The age of the patient constitutes no absolute limiting factor, although treatment with estrogens may mask the onset of the climacteric.

Certain liver and endocrine function tests may be affected by exogenous estrogen administration. If test results are abnormal in a patient taking estrogen, they should be repeated after estrogen has been withdrawn for one cycle.

**Adverse Reactions:** The following adverse reactions have been reported associated with short acting estrogen administration:

nausea, vomiting, anorexia  
gastrointestinal symptoms such as abdominal cramps and bloating

breakthrough bleeding, spotting, unusually heavy withdrawal bleeding (See DOSAGE AND ADMINISTRATION)

breast tenderness and enlargement  
reactivation of endometriosis  
possible diminution of lactation when given immediately postpartum

loss of libido and gynecomastia in males  
edema

aggravation of migraine headaches  
change in body weight (increase, decrease)  
headache

allergic rash  
hepatic cutaneous porphyria becoming manifest  
**Dosage and Administration:** PREMARIN should be administered cyclically (3 weeks of daily estrogen and 1 week off) for all indications except selected cases of carcinoma and prevention of postpartum breast engorgement.

**Menopausal Syndrome**—1.25 mg. daily, cyclically. Adjust dosage upward or downward according to severity of symptoms and response of the patient. For maintenance, adjust dosage to lowest level that will provide effective control.

If the patient has not menstruated within the last two months or more, cyclic administration is started arbitrarily. If the patient is menstruating, cyclic administration is started on day 5 of bleeding. If breakthrough bleeding (bleeding or spotting during estrogen therapy) occurs, increase estrogen dosage as needed to stop bleeding. In the following cycle, employ the dosage level used to stop breakthrough bleeding in the previous cycle. In subsequent cycles, the estrogen dosage is gradually reduced to the lowest level which will maintain the patient symptom-free.

**Postmenopause**—as a protective measure against estrogen deficiency-induced degenerative changes (e.g. osteoporosis, atrophic vaginitis, kraurosis vulvae)—0.3 mg. to 1.25 mg. daily and cyclically. Adjust dosage to lowest effective level.

**Osteoporosis** (to retard progression)—usual dosage 1.25 mg. daily and cyclically.

**Senile Vaginitis, Kraurosis Vulvae with or without Pruritus**—0.3 mg. to 1.25 mg. or more daily, depending upon the tissue response of the individual patient. Administer cyclically.

**How Supplied:** PREMARIN (Conjugated Estrogens Tablets, U.S.P.)

No. 865—Each purple tablet contains 2.5 mg., in bottles of 100 and 1,000.

No. 866—Each yellow tablet contains 1.25 mg., in bottles of 100 and 1,000. Also in unit dose package of 100.

No. 867—Each red tablet contains 0.625 mg., in bottles of 100 and 1,000.

No. 868—Each green tablet contains 0.3 mg., in bottles of 100 and 1,000.

7352

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When you've  
established  
it's epilepsy\*

**consider...**





# MYSOLINE®

Brand of  
**PRIMIDONE**

## the only anticonvulsant many patients ever need

### **In psychomotor epilepsy**

Recognized as especially complex phenomena, psychomotor (temporal lobe) seizures are frequently difficult to control. MYSOLINE has established an excellent record of success in controlling seizures of this nature. Millichap<sup>1</sup> specifically recommends the initial use of MYSOLINE for the treatment of psychomotor seizures. Chronister and Nelson<sup>2</sup> consider MYSOLINE an effective medication in the often refractory psychomotor seizures, even though complete control is not always possible in all patients. And Taylor<sup>3</sup> classifies MYSOLINE as "particularly useful in psychomotor epilepsy."

### **In grand mal epilepsy**

MYSOLINE has been successfully used as therapy for major motor seizures and has maintained many patients seizure-free. As a case in point, Livingston and Pruce<sup>4</sup> have stated that "Mysoline is an excellent drug for the control of major motor seizures. . . ." Scholl<sup>5</sup> concluded that MYSOLINE, used alone or in combined therapy, "is an excellent anticonvulsant" in the control of these seizures. Aird<sup>6</sup> reported that MYSOLINE "is particularly effective against grand mal and temporal lobe epilepsies." And Metrick,<sup>7</sup> in his table on medical management of seizures, has noted that MYSOLINE "is an excellent drug for grand mal seizures but must be started at low dosage and very gradually increased."

### **In focal epilepsy**

The Jacksonian seizure is a typical focal motor seizure, and is often difficult to treat. MYSOLINE may prove useful as initial therapy. In the opinion of Forster,<sup>8</sup> many neurologists regard MYSOLINE as a valuable drug in this area.

### **Also useful as concomitant therapy...**

When other anticonvulsants have not kept the patient adequately seizure-free, the addition of MYSOLINE to the regimen may help you achieve improved anticonvulsant control.

A double-blind comparative study by White<sup>9</sup> revealed that "the drugs phenobarbital, diphenylhydantoin and primidone could be used in combination effectively to avoid side effects. The results suggested that the anticonvulsant effects of the drugs were additive and that the side effects were not." Furthermore, McNaughton and Lloyd-Smith<sup>10</sup> reported "Primidone (Mysoline) may be used at any age alone or in combination with phenobarbital, diphenylhydantoin sodium, or both."

### **...or as replacement for previous therapy**

When the degree of control obtained with other anticonvulsants is deemed unsatisfactory—or the medication produces side effects that force its discontinuation—MYSOLINE may be added to the regimen and eventually replace concomitant therapy after necessary dosage adjustment has been completed. This transition should be made gradually over a period of several weeks. The A.M.A. Council on Drugs<sup>11</sup> has stated that "Mysoline (primidone) . . . is frequently useful in refractory epilepsies, especially of the major motor and psychomotor types," and Millichap<sup>12</sup> has recently said, "Its use is indicated in grand mal seizures when these are resistant to phenobarbital or to a combination of phenobarbital and diphenylhydantoin."

**Ayerst®**

*See last page of advertisement for prescribing information.*

# Mysoline® (primidone)

...used alone  
...used with others  
...used when others fail

## BRIEF SUMMARY

(For full prescribing information, see package circular.)

## Mysoline® (primidone)

Anticonvulsant

**INDICATIONS:** MYSOLINE, either alone or in combination, is indicated in the control of grand mal, psychomotor, and focal epileptic seizures. It may control grand mal seizures refractory to other anticonvulsant therapy.

**PRECAUTIONS:** The total daily dosage should not exceed 2 Gm. Since MYSOLINE therapy generally extends over prolonged periods, a complete blood count and a sequential multiple analysis-12 (SMA-12) test should be made every six months.

**Use in pregnancy:** The effect of primidone on the human fetus has not been studied, and the benefit of administration of any drug during pregnancy must be weighed against any possible effect on the fetus.

Neonatal hemorrhage, with a coagulation defect resembling vitamin K deficiency, has been described in newborns whose mothers were taking MYSOLINE and other anticonvulsants. Pregnant women under anticonvulsant therapy should receive prophylactic vitamin K<sub>1</sub> therapy for one month prior to, and during, delivery.

**In nursing mothers:** There is evidence that in mothers treated with MYSOLINE, the drug appears in the milk in substantial quantities. Since tests for the presence of primidone in biological fluids are too complex to be carried out in the average clinical laboratory, it is suggested that the presence of undue somnolence and drowsiness in nursing newborns of MYSOLINE (primidone)-treated mothers be taken as an indication that nursing should be discontinued.

**ADVERSE REACTIONS:** The most frequently occurring early side effects are ataxia and vertigo. These tend to disappear with continued therapy, or with reduction of initial dosage. Occasionally, the following have been reported: nausea, anorexia, vomiting, fatigue, hyperirritability, emotional disturbances, diplopia, nystagmus, drowsiness, and morbilliform skin eruptions. On rare occasion, persistent or severe side effects may necessitate withdrawal of the drug. Megaloblastic anemia may occur as a rare idiosyncrasy to MYSOLINE and to other anticonvulsants. The anemia responds to folic acid, 15 mg. daily, without necessity of discontinuing medication.

**DOSAGE AND ADMINISTRATION:** The average adult dose is 0.75 to 1.5 Gm. per day. The initial dose is 250 mg. Increments of 250 mg. are added, usually at weekly intervals, to tolerance, or therapeutic effectiveness, up to daily doses not exceeding 2.0 Gm. A typical dosage schedule for the introduction of MYSOLINE (primidone) is as follows:



### Adults and Children Over 8 Years of Age

<i>1st Week</i> 250 mg. daily at bedtime	<i>2nd Week</i> 250 mg. b.i.d.
<i>3rd Week</i> 250 mg. t.i.d.	<i>4th Week</i> 250 mg. q.i.d.

In children under 8 years of age, maintenance levels are established by a similar schedule, but at one-half the adult dosage. It is best to begin with 125 mg., with gradual weekly increases of 125 mg. a day, to a daily total usually between 500 mg. and 750 mg.

**In patients already receiving other anticonvulsants:** MYSOLINE (primidone) should be gradually increased as dosage of the other drug(s) is maintained or gradually decreased. This regimen should be continued until satisfactory dosage level is achieved for combination, or the other medication is completely withdrawn. When therapy with this product alone is the objective, the transition should not be completed in less than two weeks. MYSOLINE 50 mg. Tablet can be used to practical advantage when small fractional adjustments (upward or downward) may be required, as in the following circumstances: for initiation of combination therapy; during "transfer" therapy; for added protection in periods of stress or stressful situations that are likely to precipitate seizures (menstruation, allergic episodes, holidays, etc.)

**HOW SUPPLIED:** MYSOLINE Tablets—No. 430—Each tablet contains 250 mg. of primidone (scored), in bottles of 100 and 1,000. Also in unit dose package of 100. No. 431—Each tablet contains 50 mg. of primidone (scored), in bottles of 100 and 500. MYSOLINE Suspension—No. 3850—Each 5 cc. (teaspoonful) contains 250 mg. of primidone, in bottles of 8 fluidounces.

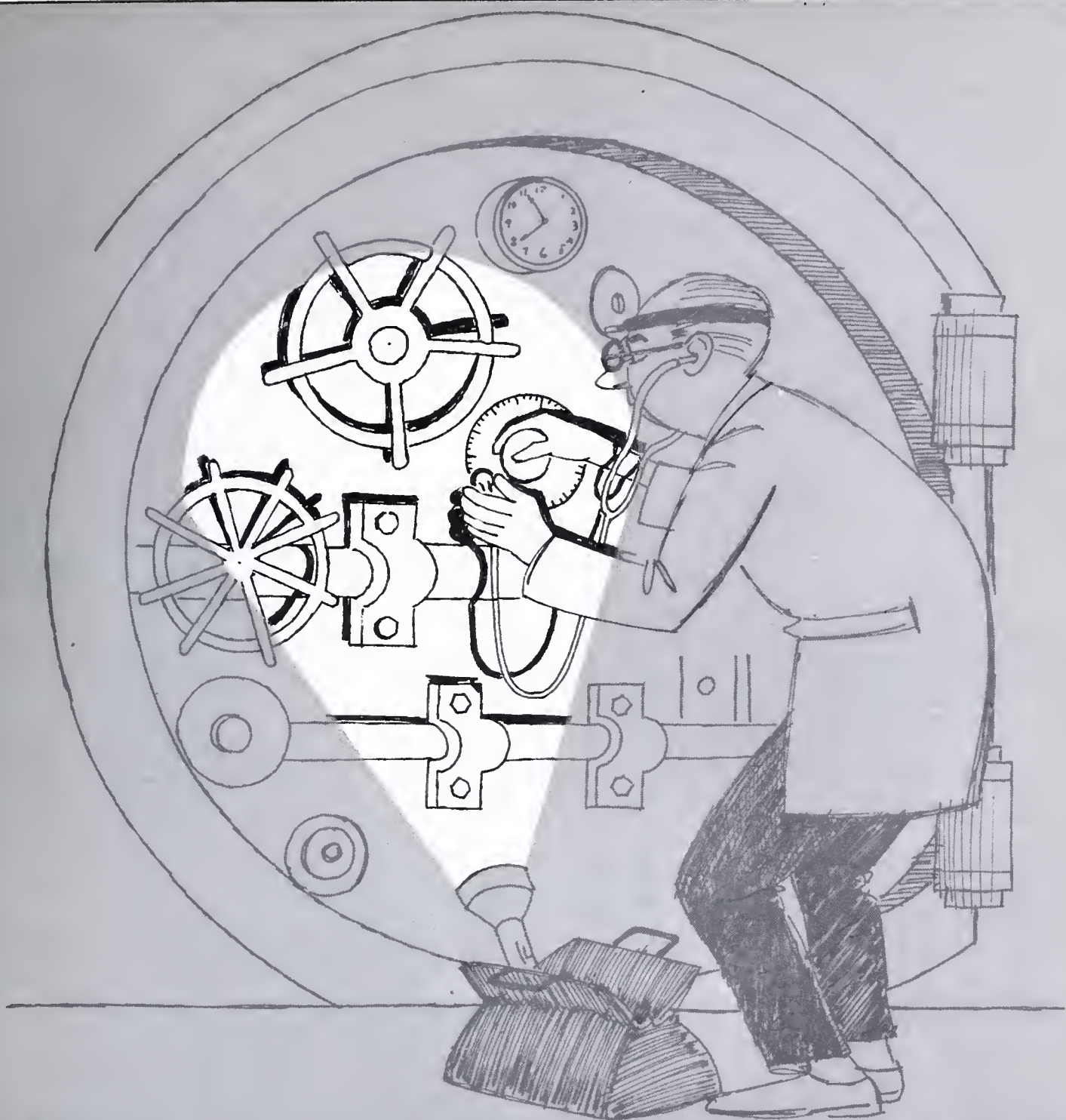
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your choice of sleep medication  
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sleep-inducing potential

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relative safety

Chronic tolerance studies have confirmed the relative safety of Dalmane (flurazepam HCl); no depression of cardiac or respiratory function was noted in patients administered recommended or higher doses for as long as 90 consecutive nights.

In most instances when adverse reactions were reported, they were mild, infrequent and seldom required discontinuance of therapy. Morning "hang-over" with Dalmane has been relatively infrequent. Dizziness, drowsiness, lightheadedness and the like have been the side effects noted most frequently, particularly in the elderly and debilitated. (An initial dose of Dalmane 15 mg should be prescribed for these patients.)

sleep for 7 to 8 hours  
without need to  
repeat dosage

No sleep medication has been as rigorously evaluated in the sleep research laboratory as Dalmane. Insomnia patients given one 30-mg capsule of Dalmane at bedtime, on average: fell asleep within 17 minutes, had fewer nighttime awakenings, spent less time awake after sleep onset, and slept for 7 to 8 hours with no need to repeat dosage during the night.



sleep with  
consistency

Dalmane (flurazepam HCl) is a distinctive sleep medication—a benzodiazepine specifically indicated for insomnia. It is not a barbiturate or methaqualone, nor is it related chemically to any other available hypnotic.

When your evaluation of insomnia indicates the need for a sleep medication, consider Dalmane—a single entity nonnarcotic, nonbarbiturate agent proved effective and relatively safe for relief of insomnia.

Dalmane has been shown to be consistently effective even during consecutive nights of administration, with no need to increase dosage.

**DALMANE**<sup>®</sup>  
(flurazepam HCl)

**When restful sleep  
is indicated**

**One 30-mg capsule *h.s.* — usual adult dosage**

(15 mg may suffice in some patients).

**One 15-mg capsule *h.s.* — initial dosage for elderly or debilitated patients.**

**Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:**

**Indications:** Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

**Contraindications:** Known hypersensitivity to flurazepam HCl.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

**Precautions:** In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

**Adverse Reactions:** Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, e.g., excitement, stimulation and hyperactivity, have also been reported in rare instances.

**Dosage:** Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage, 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

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# Report of a Case

*Electromyography a help in diagnosis.*

## Myotonia Congenita (Thomsen's Disease)

CHANSOO KIM, M.D.\* and SHIRO YAMADA, M.D.,\*\* *Honolulu*

● *Medical literature is replete with a multitude of eponyms, and they are frowned upon as a nuisance by the medical profession. Consequently, there is a strong tendency to replace eponyms with appropriate medical terms. However, Myotonia Congenita has been and will be remembered as Thomsen's Disease. In 1876, Asmus Julius Thomas Thomsen, a Danish physician, first described this unknown mysterious disease which he called myotonic cramps. He described the disease so well because he himself was afflicted, and the disorder could be traced through five generations of his own family. His original description of the disorder has been universally accepted as one of the finest neurological classics.*

THE CARDINAL feature of Thomsen's Disease is myotonia. This disorder is characterized by an impaired ability to relax a previously contracted muscle and is associated in human beings with three genetically distinct clinical entities: Myotonia Congenita (Thomsen's Disease), Paramyotonia, and Myotonia Dystrophica. Myotonia also occurs in goats and horses as an inherited disease.

Paramyotonia is a term designating a group of disorders in which myotonia appears only on exposure to cold. However, patients with the congenital and dystrophic varieties of the disease also tend to manifest greater rigidity upon exposure to cool environmental temperatures.

Myotonic dystrophy is a progressive multi-system disorder with onset at any age from early childhood to late adult life, but usually arising in the third or fourth decades. The clinical picture is characterized by myotonia, atrophy of the muscles, especially those of the face and neck, premature cataracts, early baldness, testicular atrophy, and evidence of dysfunction of other endocrine glands.

Myotonic dystrophy, especially of early onset, is accompanied by an increased incidence of skeletal abnormalities. The most common among these are hyperostosis frontalis interna, thickening of the calvarium, small sella turcica, increased pneumatization of the sinuses, kyphoscoliosis, talipes, and pes cavus.<sup>1, 2</sup>

Herein is presented what is considered a classical case of Thomsen's Disease. Its diagnosis was fully established beyond dispute clinically, electromyographically and histologically.

REPORT OF A CASE: This 10-year-old Okinawan girl was born by Cesarean section at full term after an uncomplicated pregnancy. The mother couldn't recall having suffered from any serious illness and taking any drugs during the pregnancy. The child's weight at birth was 3.5 kg. and there was no protracted period of physiological jaundice. She was bottle fed and continued to thrive at normal rate until age 2 years, when the parents first noticed the child was still unable to walk alone. At this time, she was also noted to have a squint. She had an episode of febrile illness for several days and allegedly developed a convulsion. At age 3 years she started to walk "stiff" and she couldn't walk at all fast. Her

\* Associate Professor, Director of PM&R, University of Hawaii Postgraduate Medical Education Program, Okinawa, Ryukyu Islands. Presently, Associate Medical Director, Pacific Institute of Rehabilitation Medicine, Honolulu, Hawaii.

\*\* Director, Crippled Children Hospital, Naha, Okinawa.

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speech was described as "slow and labored." When she reached school age, she attended a regular elementary school. Even though she was physically handicapped, she was considered a "bright kid," but she couldn't compete physically with her normal peers. In June, 1968, she was admitted to the Crippled Children's Hospital in Naha, Okinawa, for rehabilitation. She was erroneously diagnosed as having a spastic type of cerebral palsy.

The patient was the only child in the family. The parents were of the same age and unrelated. They were in good health. Both of them were asymptomatic and had normal electromyographic studies. The family history was negative for any neuromuscular disease and skeletal deformities.

On physical examination, the child was rather short in stature and appeared like a miniature "Hercules." (Figure 1) Vital signs were normal.

FIG. 1.—Patient appears like a miniature "Hercules," presenting marked muscular tonus which is generalized and visible.



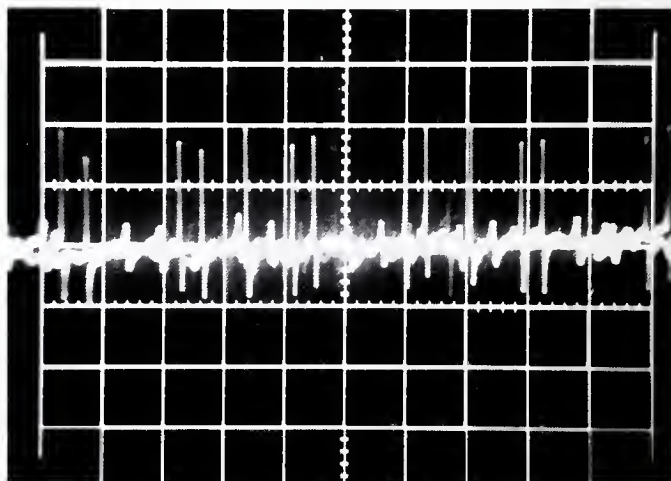
Generalized muscular hypertrophy was particularly noticeable. She walked like a "wooden doll." Alternate opening and closing of the fist was initiated with extreme difficulty, suggesting the presence of action myotonia. When asked to close the eyes tightly and then open as rapidly as possible, she demonstrated an unequivocal myotonia of the orbicularis oculi. There was also percussion myotonia of the thenar muscles and tongue. The tendon reflexes were of normal amplitude and no pathological reflexes were elicited. Her intelligence was rated at least normal (according to her teacher, she has been doing well in class).

Results of routine examinations of the blood and urine were normal. Serum phosphorus, calcium, creatinine, alkaline phosphatase, lactic dehydrogenase, aldolase, transaminases (SGOT and SGPT), creatine phosphokinase, electrophoresis and protein bound iodine were normal. Results of 24-hour urinary creatine and creatinine excretion were also normal. Radiographic studies were unremarkable. The bone age determined by X-rays of the hand and wrist was considered within normal limits. Results of the electrocardiogram and electroencephalogram were normal. Motor conduction velocities were determined for the left median and ulnar nerve and were normal at 58 M/sec. and 66.6 M/sec. respectively. The terminal conduction delay of the nerves was also normal.

### EMG Testing

On electromyographic testing, immediately after insertion of the needle electrode into (L) quadriceps, there was a rapid volley of potentials, waxing and waning at a very high frequency, resembling in sounds on the loud speaker a diving airplane or attacking aircraft. Electromyograms recorded from the (L) biceps brachii and thenar muscles also showed typical myotonic discharges with dive-bomber effect. Each potential was biphasic, with a small second phase. (Figure 2)

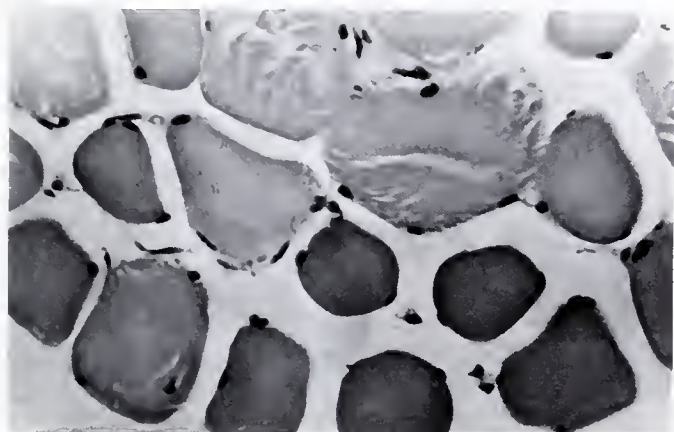
FIG. 2.—Repetitive potentials evoked in (L) biceps with characteristic dive bomber sound emission  $100\mu\text{v}$  per vertical diversion with 10 ms in duration.





Biopsy of the quadriceps was performed and section of tissue embedded in paraffin and stained with Hematoxylin-Eosin showed diffuse hypertrophy of muscle fibers under the light microscope. There were no dystrophic changes present. (Figure 3)

FIG. 3.—*Biopsy of the Quadriceps shows diffuse hypertrophy of muscle fibers (H.E. X200).*



### Discussion

Myotonia congenita (Thomsen's Disease) is a rare disease with onset usually at birth or shortly afterwards, but it may come to be recognized with increasing frequency because more common use of the electromyogram in routine diagnosis of muscle disease will help detect the milder forms of the disease. According to Adams, Denny-Brown and Pearson, about one-fourth of the reported cases of Thomsen's disease are hereditary; the disorder in such cases is transmitted as an autosomal dominant. The disease was so transmitted in Thomsen's family.

However, in 1966, Becker, after his extensive review, stated that myotonia congenita is more often transmitted by a recessive gene than by a dominant one.<sup>8</sup>

The exact cause of the myotonic response is unknown. This disturbance appears to be the reverse of that of myasthenia gravis, in that the myotonia is decreased by the administration of quinine and increased by neostigmine. That the myotonia is independent of the nerve supply to the muscle and its motor end plate has been proven by the fact that the myotonic reaction persists even after peripheral nerve section and after paralysis of its motor end plate by curare.

These experimental findings strongly suggest that the site of involvement is at the muscle fiber. Myotonia can be induced in vivo and in vitro with 2,4 dichlorophenoxy acetic acid and can also be reproduced experimentally in laboratory animals when they are treated with 25-azacholesterol. The mechanism by which 25-azacholesterol induces myotonia is not completely understood. It has been suggested, however, that the cholesterol analog alters sterol composition and the normal

function of the muscle membrane.<sup>6, 9</sup> The only consistent pathological abnormality found in Thomsen's disease is hypertrophy of the muscle fibers. Dystrophic changes such as are seen in Myotonia Dystrophica are not found.

### Thomsen's Description

Thomsen said of his myotonia, "In my case it was the first symptom which showed up for as long as I can remember. As a boy I was often unable to get up from a chair immediately when I was called unexpectedly. If I got up quickly, my legs were attacked by this tonic cramp which frustrated every effort to move away. If I summoned all my will power to force my legs to move, I fell down and lay there stiff as a board unless I could grasp some supporting object. If I had the time to wait until the cramp eased then the will exerted itself very gradually and almost imperceptibly over the network of nerves. When everything was functioning properly again I was just as nimble as other boys of my age."<sup>4</sup>

Thomsen's assertion that myotonia congenita and psychosis were causally related were subsequently challenged by his grandnephew, Nissen, and other investigators. It is now believed that the fortuitous association of Thomsen's disease and psychosis may be explained on the basis of secondary emotional disability.

Myotonia does not usually produce great physical disability except for difficulty in walking and running, and stiffness, particularly when attempting to initiate movement. The patient is most apt to have difficulty after prolonged sitting because the myotonia is worse with the initial attempt at movement and decreases with repetitive movement.

The most striking sign noted on physical examination is generalized muscular hypertrophy and the patient with severe involvement is said to look "Herculean." Most patients, however, do not demonstrate so dramatic an appearance.

The demonstration of myotonia is the most important clinical sign which the examiner can elicit. Having the patient make a clenched fist and attempt to rapidly relax, or having the patient close the eyes tightly and then open up as fast as possible is one good way to demonstrate a myotonic response; percussing over one of the thenar muscles is another way to do this. In some cases, speech is also affected and described as "mushy" or "laborious." In sharp contrast to Myotonia Dystrophica, the patients with Thomsen's Disease have normal or above normal mentation.

### Enzymes Are Normal

The diagnosis is easily made by clinical examination if the examiner is familiar with the

symptoms and searches for the signs. Laboratory aids are of limited value. The serum enzymes, creatine phosphokinase and aldolase, which are so helpful in making an early diagnosis of muscular dystrophy, are normal in patients with Thomsen's Disease.

Muscle biopsy, since it reveals only moderate hypertrophy, is of limited value in the usual patient. More often than not, the specimen is read as normal by the pathologist.

Consequently, the electromyogram has become the single most important laboratory test since it demonstrates without question the myotonia, and leaves to the physician only the differential diagnosis. Other conditions associated with myotonia are rare cases of hyperkalemic periodic paralysis, cretinism with muscular hypertrophy (Kocher-Debre-Semelaigne Syndrome),<sup>8</sup> and chondrodystrophic myotonia recently described by Aberfeld et al.<sup>7</sup> Myotonia has also been reported as an incidental finding in some patients with polymyositis, carcinomatous neuropathy, hypothyroidism, infectious neuritis, amyloid neuropathy, in patients taking Diazacholesterol and in a patient with a chloroquine myopathy.<sup>7, 8</sup>

In 1958, Goodgold and his associates reported "Electromyographic Myotonia" in a variety of conditions including progressive muscular dystrophy, progressive muscular atrophy and in various peripheral neuropathies.<sup>9</sup> Electrical activity of myotonic muscle is characterized by abnormal contractability and irritability. It is impossible to obtain electrical silence, as in normal muscle, and voluntary or mechanical stimulation is followed by rhythmic myotonic discharges which wax and wane in frequency and amplitude and on an audio-

system sound like an attacking aircraft or "dive-bomber."

## Drugs May Help

No treatment has been found effective in altering the course of the myotonic disease. However, numerous drugs have been found to be effective in decreasing the myotonic reaction. Quinine (0.3 to 0.6 gm 3 times) and Procaine Amide (4-6 gm) are claimed to be the two most useful drugs in the usual clinical situation. Prednisone is equally effective, but all of them are limited in efficacy by their undesirable side effects. Dilantin also has been reported as being of value in the control of myotonia.

In view of the nature of the disorder, it follows that physical medicine and rehabilitation measures play a limited role in the management of the patient with Thomsen's Disease.

Although myotonia and muscle hypertrophy remain unchanged, patients with this disease are able to live normal lives within limitations imposed by the myotonia. However, patients with myotonic dystrophy carry a poor prognosis because of the unremittingly progressive deterioration and frequent cardiac involvement.<sup>10</sup>

## Summary

A classical case of Thomsen's Disease or Myotonia Congenita is presented with a review of the literature. The diagnosis was fully established clinically, electromyographically and histologically. It is stressed that of all laboratory aids, the electromyogram is the single most important laboratory test in the diagnosis of myotonia congenita.

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## Observations on the Allergenic Environment of Okinawa

LOUISE A. BOX-HUTCHINSON, M.D.,\* *Honolulu*

● *During 1970-71 I was privileged to work with the staff of the University of Hawaii as a member of its Postgraduate Medical Education Program in the Ryukyus. The location of this teaching project was the 300-bed Okinawa Central Hospital in Gushikawa City. The hospital is devoted to the care of Okinawan citizens. While there I studied the local environment as to its allergen content, and conducted daily pollen counts. This report hopefully will provide useful information and stimulate further interest in the subject of allergy in Okinawa, and Okinawans.*

### The Climate and the Islands

THE 75 CORAL REEF ISLANDS of the Ryukyuan chain extend from southern Japan, in a northeast to southwest direction to near Taiwan.<sup>7</sup> Of the 75 islands, 45 have human habitation. Of the total population of about 1,000,000, approximately 900,000 are concentrated on the 467 square miles of the semi-tropical island of Okinawa. This 66-mile-long island, which varies from 2 to 20 miles in width, is 960 miles south of Tokyo and 465 miles from mainland China. The mean daily minimum temperature for the coldest month, February, is 50°F, and the mean daily maximum temperature for the hottest month, July is 90°F.<sup>9</sup>

Humidity is excessive, averaging 80%. Precipitation is heavy, ranging from 53 to 118 inches annually, with rain occurring on an average of 170 days of the year. May and June are considered

"rainy season," but heavy rain may occur at any time. The typhoon season extends from April to October, with an average of four a year.

A steady wind blows from the north and northwest during the winter (late October to March) shifting to south-southeasterly during the summer. Wind speeds are generally 5-15 knots with frequent gusts.

As will be seen, the pollen counts are low in spite of the amount of vegetation, and this is probably greatly influenced by the high humidity offsetting the expected effect of the breezes.

### Vegetation and Pollen Counts

The local botanical environment was studied as to its potential allergenic load through daily pollen counts and by field trips. The Government of the Ryukyu Islands Departments of Forestry and Botany, as well as the Division of Agriculture of the U.S. Civil Administration, assisted with field trips, specimen identification, and with their libraries. Mr. Steven Chinen and Mr. Seidin Takemoto of the University of Hawaii Laboratory gave invaluable assistance.

### POLLEN COUNTS

Pollen counts were made using a simple locally constructed Durham type sampler, placed on the roof of the hospital. The Okinawa Central hospital is strategically located in a rural area at the edge of Gushikawa City, inland from the ocean, and the counter was on a fifth floor roof.

The counts for the year are presented in Table 1. Counts are always low, but there is always

\*Work done while the author was Associate Professor of Clinical Medicine at the University of Hawaii Post Graduate Medical Program, Ryukyus. Present address: P. O. Box 13247, San Antonio, Texas 78213.

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TABLE 1.—Okinawa Pollen Counts, 1970 (grains/sq cm total/month).\*\*

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Trees												
Causerinia	9	24	10	7	241	18				3		6
Pine	2	23	26	8								
Other trees										12		
Grasses												
Large									1	69	51	19
Small	2				6	19	17	5	2			
Weeds		2	3	3	1	3	8	1	1	1	1	2
Unknowns*	2	4	3	7	16	6			1		3	8
Fungi												
Alternaria	11					55	5	11	242	49	12	5
Helminthosporium					3	7			7	10		
Other					1				2	7	9	
Rust						4	1	5	2	1	3	

\* One of the unknown pollens seen resembled cedar. Cedar is common to other parts of Japan. The forestry division did not report it to me and I may have failed to see it.

\*\* These counts are estimated to represent only about 60 per cent of the total. Owing to frequent rains, high winds, and typhoon warnings which necessitated removing the counter from the roof, there was considerable slide loss.

something on the air, with a slight increase two times during the year. *Causerinia equistifolia* (Australian pine) is a very prevalent tree on the island, and shows peak counts in May, although there are always some trees pollinating. This tree, though not generally regarded as a strong allergen, has been previously classified as an allergenic pollen producer in some cases.<sup>14</sup>

There is also a rise in counts in the fall—late October and early November—when the large tropical grasses are pollinating, particularly *Miscanthus Sinensis*; the pollen on the collection slides then corresponds with specimens taken from that grass.

As in the Southern United States, the climate favors plant growth throughout the year. The terrain is cut up, with hills, gullies, and "cul de sac" living, so the local exposure may not be represented by slide counts from any one area.

#### FIELD TRIPS

Field trips and discussions with local botanists indicated that there is a wide variety of known allergens present on the island, as indicated in Table 2. There are also a number of tropical grasses, the significance of which remains to be determined. The single most common allergenic grass in uncultivated areas appeared to be Johnson grass.

*Ambrosia artemesiaefolia* (ragweed) is said to have been introduced into the Japanese islands in the 1930's,<sup>11</sup> though Durham<sup>3</sup> discussing the reports of Hara who studied allergic problems in Japan and Japanese,<sup>4, 5, 6</sup> questioned its significance, as cultural habits of weeding and also the high humidity keep the air counts low. Botanists told me that small amounts are present on Okinawa, but I did not see it myself, nor was such

pollen on the collection slides. The Japanese word for ragweed, "buta-kusa," translates literally to "pig weed," a trick of terminology which could be confusing, since pig weed in English is common terminology for *amoranthus*.

Chenopods, amaranths, and atriplex are all present in small quantities. It has been reported that, during the pollinating season, the cycad gives off a bad odor which may serve as a respiratory irritant.<sup>10</sup> This phenomenon was not observed by me.

Certain grasses well known as allergens in the United States are plentiful, especially on the American military bases and off-base American housing areas. These include *cynodon dactylon* (Bermuda) and *poa annua*. Johnson grass (*sorghum holopense*) grows wild along ditches, and along the highways from one end of the island to the other. Plantain species, and *rumex* species are plentiful all over the island. Although high pollen counts from these were not found on the slides, they are probably of some importance. *Paspalum* species are also very prevalent and allowed to go on to pollination. The majority of the many other grasses present have already been classified as clinically unimportant because of poor pollen production, eg, the *panicum* and *digitaria* species.<sup>16</sup>

#### Tropical Grasses

The significance of the large tropical grasses and reeds as allergens needs more study. *Saccharum officinarum* (sato-kibe, sugar cane), the main cash crop which occupies most of the south half of the island, is of doubtful importance. Both the Hawaiian researchers<sup>13</sup> and the Okinawan agriculture experts assert that, owing to its hybridization, it releases very little pollen. *Saccharum*

spontaneum is also plentiful and the pollen is wind borne. Extensive interviews with patients elicited more willing to admit symptoms in the cane fields.

There are two crops of rice (*oryza sativa*) annually, chiefly raised on the north half of the island, with pollination occurring in May-June and August. Allergists on Taiwan<sup>2</sup> occasionally suspected rice plants of being allergenic there, but they do not test for it because of difficulty in obtaining pollen for extract. The moist environment in which rice is grown should effectively cut down on exposure to pollen. The possibility of its residual presence on the tatami mats used for sleeping and flooring—essentially rice straw—merits consideration. Tatami mat extract, in no way specific

for rice, is used by some of the Okinawan physicians in testing and the extract is available from a Japanese supply house through the local pharmacists in Naha.

The several non-commercial grasses among the large tropical fall pollinators listed in Table II are of potential interest. *Miscanthus sinensis* (suzuki or habu) appeared to have possible importance. It is plentiful, and pollinates extensively for a short period in October and November, causing the fields to appear red. Although the structure of the grass would suggest limited dissemination, the high slide counts for the year occurred when it was blooming; the pollen on the slide matched specimens taken from the plant. Among the Okinawans there was a clinical association of symptoms suggesting it as a probable cause. The collection of good pollen for making extract poses a significant technical problem, for the plumed spikelets disarticulate and fall, and are nearly impossible to separate. Large parts of the plumes stand from one season to the next and may also serve as a trap for other airborne pollens.

It was not possible to do petri dish studies of molds, which were frequently present on slides from May through December. They are a well known problem in the household. The American household in particular, closed up, usually operating with two or three air conditioners for cooling in summer and heating in winter, is vulnerable. The elements are there for both immediate sensitivity, and the acute hypersensitivity pneumonitides. Petri dish studies are certainly needed, as well as more clinical correlation.

### The Home Environment

Things present in the Okinawan home most apt to be allergenic would include the tatami sleeping mat, the cotton stuffed futons, and molds.

The American often brings his allergens with him. The love of American ladies for raw silks, the extensive use of insecticides, and the formalin-releasing compounds to stop mold growth may add significantly to the picture of allergens on military bases. Pets are common both on and off base, but less apt to be kept on the inside of the home by the Okinawans.

On at least one occasion, I have personally seen asthma severely aggravated by the popular lacquer ware. Coral dust, which was classified as a respiratory irritant during World War II<sup>8</sup> is used in roads.

### Other Factors in Allergy

The Okinawan people offer interesting possibilities for long range observations by the allergist interested in the influence of an increasing allergenic load on the incidence of the atopic state

TABLE 2.—*Flora of Okinawa.*

#### TREES

- \* *Causerinia equisetolia* (moru-moku), plentiful, peaks May.
- Pinus ryukiensis*, very plentiful, February, March.
- \* *Morus* (mulberry), scanty, north end of island.
- \* *Salix babylonica* (willow), ornamental only.
- \* *Platanus racemosa* (sycamore), cultivated.
- \* *Ulmus parvifolia* (elm), cultivated.
- Quercus lithocarpus*.
- Fuguku* (the Village Tree), April. Probably not important.
- Ficus microcarpa* (banyan), probably not important.
- Rhus succedanea* (haze no ki) + + +, plentiful. Pollinates May, June. All parts of the tree like most *rhus*, can be irritating.

#### GRASSES

Common smaller species

- \* *Poa annua*, plentiful especially American bases, April-June.
- \* *Cynodon dactylon*, plentiful, American bases, April-November.
- \* *Holcus halopensis* (Johnson grass) + + + +, all over island, April-November.
- Paspalum* species + + + +, May-August (often seen on slides).
- \* *Avena fatua*, present in very small quantities.
- \* *Phleum praetense*—very small quantities around Gushikawa.
- \* *Elymus* (Italian rye), very small amounts, June-August.

#### GIANT TROPICALS

- Miscanthus sinensis* (suzuki, habu), October-November.
- Saccharum spontaneum*, August-September.
- Saccharum officinarum* (sugar cane), November-January.
- Oryza sativa* (rice), May and August.
- Phragmites communis*, a giant reed, August-October.
- Arundo donax* 1 (donchik grass), a reed, August-September.

#### WEEDS

- \* *Plantago* species, major and lanceolata, April-November plentiful.
- \* *Artemisia vulgaris*, mugwort, July-November.
- \* *Chenopodium albus* (small quantities), June-October.
- \* *Amaranthus viridans*, small amounts, June-October.
- Atriplex*, species maximo wicziana.
- Kochia scoparia*.
- Ambrosia artemisiifolia*.

\* Known to be allergens in other countries.  
The *rumex* and *plantago* species were the only ones I saw myself in large quantities. The Okinawan botanist said the only ragweed he knew about personally was kept in the botanical garden.



in an isolated population. Studies by Navy pathologists during World War II<sup>1, 15</sup> revealed several common anatomical variations, particularly small, highly anomalous spleens, large pancreas, extraordinarily long tortuous colons, and late onset of degenerative vascular and lung problems.

The Okinawan diet is changing drastically from one low in well known food allergens, specifically cow's milk, citrus, melon, berries, and nuts, to a diet containing increasing amounts of these items. The total immunologic load in other respects is decreasing with the reduction of the parasite population and control of infectious diseases.

Women engage in heavy outdoor labor about equally with men, offering the opportunity to observe the influence of this type of exposure on

comparative incidence of other chronic pulmonary disease, known to show considerable international variation.<sup>12</sup> The total situation in Okinawa provides a unique opportunity to study the influence of these factors on the occurrence of allergic disease in these people.

## Summary

The allergenic environment of the island of Okinawa is discussed. Interesting prospective observations are suggested. Information here may be useful to allergists and may stimulate the establishment of baselines for studying the influence of social changes on the incidence of allergy in Okinawans.

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*A new light cast on an old problem.*

# The Racial Distribution of Strabismus— A Statistical Study

MALCOLM R. ING, M.D. and STEPHANIE W. L. PANG, Honolulu

● *Statistically significant differences were found in the racial distribution of 500 consecutive strabismus cases.*

THE PRACTICE of ophthalmology in Hawaii offers the unique opportunity to compare the distribution of certain eye diseases in different racial groups.

From The School of Medicine, University of Hawaii and The Queen's Medical Center.

Reprint requests to Malcolm R. Ing, M.D., 1600 Kapiolani Blvd., Honolulu, Hawaii 96814.

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It was a clinical impression of one of the authors that the distribution of convergent strabismus (esotropia) in Caucasians exceeded that found in Orientals. Furthermore, divergent (exotropia) strabismus appeared to be more common in Orientals.

In order to explore the statistical aspects of these impressions, 500 consecutive unselected primary strabismus cases who were seen in the orthoptic clinic at the Queen's Medical Center in Honolulu were studied and divided into three most prevalent racial groups: Caucasian-205:



Oriental-202: "mixed" (which included Hawaiian, part-Hawaiian, etc., in many different mixtures with Caucasian and Oriental)-93.

Review of data presented in Table 1 reveals esotropia to be more common than exotropia in Caucasians, accounting for 122 of 205 cases

TABLE 1.—*Racial Distribution of Strabismus in 500 Consecutive Children Referred to the Orthoptic Clinic, Honolulu.*

RACE	TYPE OF STRABISMUS		TOTALS
	Esotropia	Exotropia	
Caucasian	122	83	205
Oriental	66	136	202
Mixed	44	49	93
Totals	232	268	500

$\chi^2 = 29.51$ , 2 degrees of freedom,  $p < 0.001$ .

(ratio of 3:2) while in the Oriental group, esotropia was definitely less common than exotropia: 66 out of 202 (ratio of 1:3). Esotropia and exotropia were found in equal distribution in the mixed group.

The esotropia cases were further divided into (1) accommodative (or partly accommodative) and (2) non-accommodative cases (i.e. those cases not influenced by wearing hyperopic spectacle correction). It was found that the incidence of accommodative esotropia in Caucasians was three times more common than the non-accommodative type (ratio of 96:26). In contrast, accommodative esotropia and non-accommodative esotropia was found in equal distribution in the Oriental and mixed racial groups (see Table 2).

TABLE 2.—*Racial Distribution of Types of Esotropia in 500 Consecutive Children Referred to the Orthoptic Clinic, Honolulu.*

RACE	TYPE OF ESOTROPIA		TOTALS
	Accommodative (or Partly Accom.)	Non-Accom.	
Caucasian	96	26	122
Oriental	33	33	66
Mixed	22	21	43
Totals	151	80	231

$\chi^2 = 20.28$ , 2 degrees of freedom,  $p < 0.001$ .

Summary

In summary, statistically significant data were derived from a study of 500 consecutive strabismus cases at orthoptic clinic:

- (1) Esotropia was more common in Caucasians.
- (2) Exotropia was more common in Orientals.
- (3) Esotropia and exotropia were of equal distribution in the racially mixed.
- (4) Esotropia was much more commonly accommodative rather than non-accommodative in Caucasians.
- (5) Accommodative and non-accommodative esotropia were found to be of equal distribution in Orientals and mixed racial groups.

Appreciation and acknowledgment of the help afforded to the authors by Dr. Robert Worth, University of Hawaii School of Public Health.

*On the frontiers of inner space—the search for leukocyte antigens.*

Incidence of HL-A antigens in the Japanese Population of Hawaii\*

WAYNE M. YOKOYAMA and M. MITSUO YOKOYAMA, M.D., Honolulu

● Since the HL-A system was defined as the major histocompatibility locus in man, it has been demonstrated that there is a significant relationship between tissue types and transplantation.<sup>1</sup>

\* This study was supported by the Artificial Organ & Organ Transplantation of Kuakini Hospital, Tamada Family Fund and in part by McNerny Foundation Research Grant.  
Kuakini Medical Research Institute & Kuakini Hospital, Honolulu, Hawaii 96817.  
Received for publication December, 1972.

Besides this well known link, the HL-A system has been found to be associated with anomalous clinical outcomes. Reports<sup>2</sup> indicate that antibodies to leukocytes play a role in febrile reactions and in thrombocytopenia in blood transfusions. In addition, the HL-A system has been found to be associated with disease, based on the statistical analysis of the distribution of HL-A antigens in

normal populations compared to patients. Certain HL-A antigens have been found to be predominant in patients with Hodgkin's disease,<sup>3</sup> systemic lupus erythematosus,<sup>4</sup> chronic glomerulonephritis,<sup>5</sup> leukemia,<sup>6-8</sup> choriocarcinoma and trophoblastic neoplasia,<sup>9</sup> adult coeliac disease,<sup>10</sup> multiple myeloma,<sup>11</sup> and multiple sclerosis.<sup>12</sup> It seems that these histocompatibility antigens influence an individual's susceptibility to certain diseases.

IF THERE IS variation in HL-A distribution among different ethnic groups, it would seem that there is selective polymorphism. The studies of an Oriental population by Dausset et al<sup>13</sup> prompted our work on this study. However, our preliminary results on a large scale, which included Hawaiian, Japanese, Caucasian, Filipino, and Chinese ethnic groups in Hawaii, noted a discrepancy in certain HL-A types with their results.<sup>14</sup>

The recent availability of monospecific antisera encouraged the renewal of our study, which was undertaken to determine the incidence of HL-A types in a normal, unrelated Japanese population in Hawaii; the results are reported in this paper.

Materials and Methods

Lymphocytes were separated, employing a Plasmagel-nylon fiber column technique, modified from Walford et al,<sup>15</sup> from defibrinated whole blood obtained via venipuncture from donors. The lymphocytotoxicity test was done on a microtest plate (Falcon Plastics, Los Angeles, Calif.), according to the method of Terasaki and McClelland.<sup>16</sup> Paraffin oil was used to prevent evaporation from the wells.

In each well, 1 µl of the lymphocyte suspension in autologous serum containing 1 million per ml was placed with 2 µl of HL-A antisera obtained from the National Institutes of Health and our own sources. After incubation for 30 minutes at 37°C., 5 µl of rabbit complement (Hyland Laboratories, Los Angeles, Calif.), was added and incubation was carried out for another hour. Observations were made for the percentage of stained (dead) cells after 0.1% Trypan blue dye was added.

Results

The lymphocytes of 102 normal Japanese people were tested for the presence of HL-A antigens 1, 2, 3, 5, 7, 8, 9, 10, 12, and 13. Of this sample, nine results were considered to be invalid, due to the reaction with antisera specific for more than two antigens in either the LA or Four series. The incidence of HL-A types in the remaining sample of 93 is shown in Table 1. It can

TABLE 1.—Incidence of HL-A Types in Normal Japanese Population.

SERIES	ANTIGENS	NO. POSITIVE	% (OF 93)
LA	HL-A1	1	1.1
	HL-A2	39	41.9
	HL-A3	6	6.5
	HL-A9	55	59.1
	HL-A10	18	19.4
Four	HL-A5	29	31.2
	HL-A7	17	18.3
	HL-A8	4	4.3
	HL-A12	14	15.1
	HL-A13	11	11.8

be seen in this table that there is a low incidence of HL-A1 (1.1%), HL-A3 (6.5%), and HL-A8 (4.3%) in Japanese. In contrast, HL-A9 (59.1%) and HL-A2 (41.9%) occur quite frequently.

TABLE 2.—LA Series.

PHENOTYPE	OBSERVED
1	0
1, 2	0
1, 3	0
1, 9	1
1, 10	0
2	15
2, 3	4
2, 9	15
2, 10	5
3	1
3, 9	1
3, 10	0
9	29
9, 10	7
10	5
Blank	9

Tables 2 and 3 show the phenotype distribution of the HL-A antigens in the LA and Four series, respectively. In the LA series, HL-A2/blank was found in 15 donors, HL-A9/blank on 29 donors, and no detectable antigens at all in 9 donors. In

TABLE 3.—FOUR Series.

PHENOTYPE	OBSERVED
5	20
5, 7	5
5, 8	3
5, 12	0
5, 13	1
7	11
7, 8	0
7, 12	2
7, 13	0
8	0
8, 12	1
8, 13	0
12	4
12, 13	4
13	7
Blank	35

the Four series, a similar absence of detectable antigens was suggested by the occurrence of HL-A5/blank in 20 donors, HL-A7/blank in 11 donors, HL-A12/blank in 4 donors, HL-A13/blank in 7 donors, and no detectable antigens in 35 donors. Since this project was begun, more HL-A antigens have been assigned to the two



antigenic series by the World Health Organization nomenclature committee. Thus, in the present phenotype results, there seem to be many instances where other recently defined or still undefined antigens could be present.

Table 4 shows the gene frequencies of HL-A antigens in the present sample. Calculations

TABLE 4.—Gene Frequencies of HL-A types in Japanese.

SERIES	GENE	FREQUENCY
LA	HL-A1	0.000
	HL-A2	0.238
	HL-A3	0.033
	HL-A9	0.361
	HL-A10	0.102
Four	HL-A5	0.171
	HL-A7	0.096
	HL-A8	0.002
	HL-A12	0.079
	HL-A13	0.061

will be done with the use of the formula:  $gf = 1 - \sqrt{1-f}$  where  $gf$  is the gene frequency and  $f$  is the frequency of the antigen.

Discussion

Recent studies show variation in the frequency of HL-A types in different racial groups. In a large, heterogeneous sample of Caucasians, Albert et al<sup>17</sup> found a high incidence of HL-A1 (26.2%), and HL-A2 (50%), and a relatively low incidence of HL-A13 (3.7%). In a smaller, more homogeneous sample, Bertrams et al<sup>18</sup> obtained similar results in a German population.

However, Ting et al<sup>19</sup> examined Chinese, Malays, and Indians in Singapore and found that, compared to the Caucasian studies mentioned, there is a variation in HL-A distribution. In the Chinese sample, there was a low incidence of HL-A1, HL-A10, HL-A7, HL-A8, and virtually no HL-A3. They suggested that HL-A1 is a "Caucasian antigen." These results support the findings of Singal et al<sup>20</sup> who found HL-A1 and HL-A8 virtually absent in a small Oriental sample in Los Angeles, and of Albert et al,<sup>17</sup> who also found a low incidence of HL-A1 as well as HL-A11, HL-A8, and HL-A13, in Negro population.

Hammond and Brain<sup>21</sup> studied HL-A types in South Africa and found no presence of HL-A1 in a Bantu sample. In addition, Bodmer and Bodmer<sup>22</sup> reported the absence of HL-A1 in Ba-

binga pygmies. They also suggested that HL-A1 may be unique to the Caucasian population.

In the present study, it was found that HL-A3, HL-A8, and especially HL-A1, are virtually absent in Japanese. Previous work done at this laboratory showed a relatively high incidence<sup>14</sup> of HL-A1 in Japanese. However, the discrepancy between that earlier study, the present study, and the studies mentioned above may be attributed to the fact that monospecific antiscrum was not used, due to its limited availability at that time.

In the present study, although the samples are relatively small, the results of other, earlier investigators are confirmed, and more evidence is presented that HL-A1 may be a "Caucasian antigen." If this is so, work must be done to determine the biological significance of the selective presence of HL-A1 in Caucasians, as well as to explain the racial distribution of other HL-A antigens.

The present study also shows a low incidence of HL-A3 and HL-A8 in Japanese. This finding also confirms the previous reports mentioned and that these antigens may also be rare in Caucasians. HL-A2 and especially HL-A9 were demonstrated to occur in a high frequency in Japanese. Although the results presented are from a relatively small sample, the sample is large enough to suggest the trend of HL-A distribution in Japanese and can be viewed in light of previous studies. Since this project was begun, more HL-A antigens have been assigned to the two antigenic series by the World Health Organization nomenclature committee. Thus, in the present phenotype results, there seem to be many instances where other recently defined or still undefined antigens could be present.

Summary

One hundred and two normal, unrelated Japanese were tested for the presence of 5 HL-A antigens in the LA and the Four series respectively, employing a microlymphocytotoxicity test. It was found that there is virtually no HL-A3, HL-A8, and especially HL-A1 in this sample. In contrast, there is a high incidence of HL-A9, and HL-A2. These findings confirm previous reports on HL-A antigens present in other noncaucasian populations.

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APPENDIX.—Comparison of the results on incidence of HL-A antigens in Japanese by various investigators.

	YOKOYAMA <sup>1</sup> % (93)	DAUSSET <sup>2</sup> % (32)	SINGAL <sup>3</sup> % (94)	ALBERT <sup>4</sup> *(363)	ISHIBASHI <sup>5</sup> % (No)
HL-A1	1.1	....	0	0	11 (782)
HL-A2	41.9	41	42.5	0.250	20 (986)
HL-A3	6.5	....	21.2	0	29 (214)
HL-A5	31.2	22	50.0	0.158	20 (175)
HL-A7	18.3	13	9.6	0.047	9 (352)
HL-A8	4.3	0	3.2	0	7 (337)
HL-A9	59.1	....	....	0.320	46 (276)
HL-A10	19.4	....	43.6	0.076	8 (159)
HL-A11	....	....	....	0.123	7 (153)
HL-A12	15.1	....	18.8	0.083	7 (177)
HL-A13	11.8	13	....	0.020	....

( ) Number tested.

\* Calculated as gene frequency.

<sup>1</sup> Yokoyama, W.M., Yokoyama, M.M.: Incidence of HL-A antigens in Japanese in Hawaii. *Jap. J. Exp. Med.* 43:81, 1973.

<sup>2</sup> Dausset, J., Ivanyi, P., Colombani, J., Fiengold, N., Legrand, L.: The Hu-1 system. In *Histocompatibility Testing 1967*, p9, 189 (1967). (This sample may include Orientals other than Japanese.)

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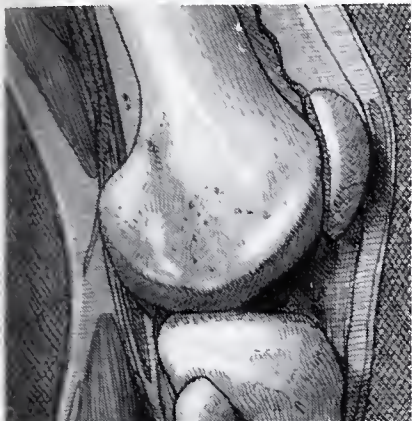
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# WHEN FLU HITS AND HURTS

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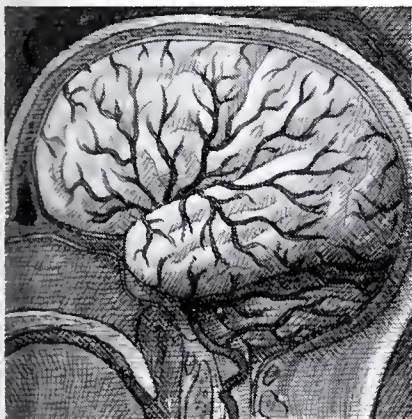
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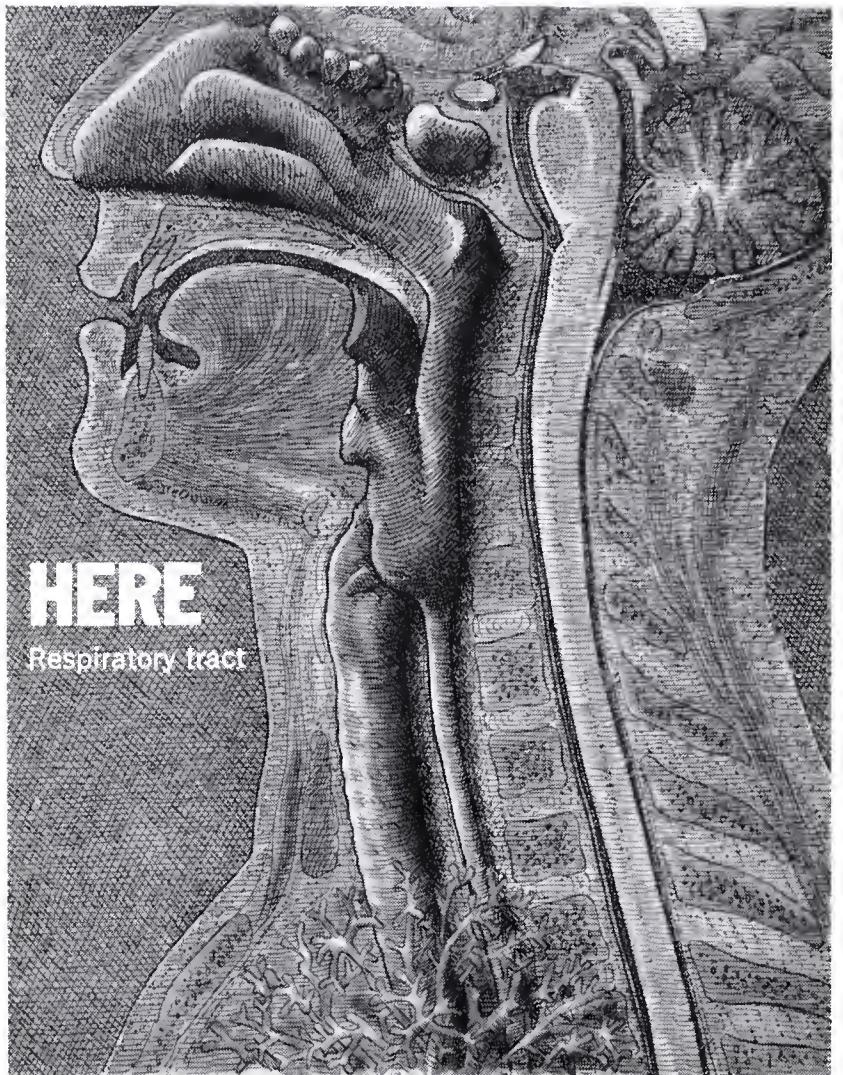
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## P.S.R.O.

P.S.R.O.—or PSRO—stands for governmental compulsion of the medical profession in America, (through the Bennett Amendment to the Social Security Act) to formulate standards of hospital care for specific diseases, which must be met if the government is to pay any part of the bill. It doesn't become fully effective, with penalties, until 1976, but it is being implemented now on a voluntary basis.

PSRO is an acronym for Professional Standards Review Organization. There will be one organization for each of almost 200 formally designated districts in the U.S.A., of which there will be 50 in existence by June, and the rest by the end of 1974 at the earliest.

Hawaii, with American Samoa, has been designated as one such area, and Hawaii is asking to have American Samoa separated from us if, as we understand, they do not feel PSRO is an appropriate device for application to their system of medical care.

Criteria are being developed for various diseases and disorders, both by designated PSRO organ-

izations and by specialty medical societies. In a general way these will list those obligatory procedures that ought to be done *always*, and those optional procedures that it might or might not be necessary to do, depending on the judgment of the physician, or on whether they had recently been done, and so on. By and large, there will be very few obligatory procedures; an electrocardiogram, presumably, in cases with a clinical diagnosis of probable coronary occlusion, for example. The list of optional criteria will be much longer, and will have considerable educational value.

It is to be hoped that the ultimate net effect of the whole program will be to improve the overall quality of medical care of hospitalized patients, and perhaps by osmosis that of unhospitalized ones as well.

It is also to be hoped that the law requiring it can be repealed, so that the program can be continued as a voluntary self-policing one. But it seems unlikely that it will be repealed until it has had a trial.

HLA

## President's Letter

I have served as your President something over six months and have nearly a year to go. Much of this six months has been spent in studying the activities of the Association with the idea of setting priorities.

During the first six months many things have happened that required much thought and careful consideration. The developing Cancer Research Center, PSRO, Community Health Planning, Continuing Education and Recertification, Manpower, HMOs, the Medical School, Emergency Medical Services, and many other things that require attention. All of these have been most important, but one over-riding problem that affects all of them and seems to defy solution is simply our lack of space.

The offices in Mabel Smyth are not adequate to house the activities of HMA, let alone the added activities of the Honolulu County Medical Society. I would like to remind you that at this time we have the core office of HMA in the Mabel Smyth Building, personnel for the Emergency Medical Services in Harkness Pavilion, the Tumor Registry in the Kinau Hale Building, and the BME (County Society subsidiary) in the Yee Hop Plaza

on North King Street. Just where we will be able to put the PSRO and the Foundation office is unknown.

This is not a new problem; it has been of concern for a number of years by a number of our forward looking members. To date an acceptable solution has not been reached. In the search process a number of locations have been examined, various methods of financing have been explored including the possibility of building our own structure, going condominium, entering into a limited partnership, and outright long term leasing. It should be noted that with all of our activities and the total space usage at present our housing costs amount to approximately \$40,000 per year. For this we receive rent receipts.

This is everybody's problem. Yours as well as mine!

We need your advice and counsel with ideas for the resolution of the space problem. It is not too late to start—Your Association will be around for a long time serving you and the physicians of the future. Discuss it—raise questions—and hopefully, provide answers!

THOMAS P. FRISSELL, M.D.

# Hawaii Medical Association

# HAWAII MEDICAL JOURNAL

## COUNCIL MEETING

Friday, November 2, 1973—5:30 P.M.  
Mabel Smyth Conference Room

### CALL TO ORDER

The meeting was called to order by President Thomas P. Frissell. Present were Drs. Winfred Y. Lee, William E. Iaconetti, R. Varian Sloan, Grover H. Batten, George H. Mills, Herbert Y. H. Chinn, J. I. F. Reppun, Douglas B. Bell II, Albert Chun-Hoon, Ann B. Catts, Patrick J. Walsh, Sakae Uehara, Verne Adams, William Dang, John Withers, DeWitt H. Smith, Calvin C. J. Sia, Fred I. Gilbert, Jr., Rowlin Lichter, Elisabeth K. Anderson, Alfred D. Morris and Charlotte Florine.

### MINUTES

The minutes of the September 14, 1973 meeting were approved as circulated.

### SECRETARY'S REPORT

The report of the Secretary was approved.

### REPORTS OF THE COMMITTEES AND COMMISSIONS:

**A. Chronic Illness:** The Chronic Illness Committee and a subcommittee on hypertension have explored the role of the HMA in hypertension screening and physician education and have prepared a grant proposal for submission to the National Heart and Lung Institute. Dr. Alfred D. Morris, chairman of the subcommittee on hypertension, has agreed to serve as project director if the project is approved. He presented the objectives and methodology to be followed under the grant.

#### ACTION:

The Council voted to approve the proposal for the Hawaii Cooperative Hypertension Program and that a grant application be submitted by the HMA.

Also approved was a motion to seek other avenues of funding a hypertension program if the grant is not approved.

The Department of Health asked for HMA support of a bill which redefines "a totally disabled person" under the present statutes. The amendment should correct some of the inequities under the present law.

#### ACTION:

It was voted to direct the Legislative Committee to support the amendment.

**B. Cancer Committee:** The committee recommends Council endorsement of the St. Francis Hospital proposal on Integrated Cancer Rehabilitation Services.

#### ACTION:

It was voted to endorse the project.

**C. Communicable Disease and School Health:** Both committees have reviewed a legislative proposal which would make immunization mandatory prior to school entry. Although there is a regulation requiring preimmunization, it is superseded by the school attendance law. The committees feel that children must be properly immunized and examined before being allowed to enter school unless given a waiver for medical or religious purposes. The committees recommend HMA support of the proposed legislation.

#### ACTION:

A motion to support the proposal was lost to a tie vote.

**D. Public Safety Committee:** The committee recommends support of a Department of Health regulation which would regulate compressed air in scuba tanks as a consumer product and test accordingly.

#### ACTION:

It was voted to support the recommendation.

**E. Substance Abuse Committee:** The Council was asked to consider the formation of a committee to study acupuncture. It was reported that there is a Department of Health committee already in existence which includes representatives from the HMA.

**F. Finance Committee:** The Finance Committee presented its report and the recommended budget for 1974. The treasurer reported that steps have been taken to establish an investment management account utilizing funds previously known as the Physicians Benevolent Fund. He also announced that the HMA has been designated as the grantee for the EMS project effective November 1. The proposed budget was reviewed in detail.

#### ACTION:

- (1) It was voted to file the financial statement for September 1973 subject to audit.
  - (2) It was voted to accept the recommendation of the Publications Committee and Finance Committee to publish the HAWAII MEDICAL JOURNAL on a monthly basis in 1974.
  - (3) It was voted to approve the committee budget for 1974.
  - (4) It was voted to approve the income items for the 1974 budget.
  - (5) It was voted to approve the general expense items for the 1974 budget.
  - (6) It was voted to continue the Common Fund allocation for 1974 on a 60 (HMA)—40 (HCMS) basis, to conduct time studies during the year using equivalent dates, and to review the Common Fund prior to the next House of Delegates session (September 1974).
- The Council met in Executive Session.
- (7) It was voted to increase the salary of the Executive Director by 15 percent of his present base salary and that his salary be reviewed annually.
  - (8) It was voted to approve the Common Fund expenses including the salary increases.
  - (9) It was voted to approve the 1974 budget in toto.
  - (10) It was voted to increase the HMA dues for 1974 by \$65.00 per member.
  - (11) It was voted to include a 2% Christmas bonus for employees in 1974.
  - (12) It was voted to approve a 2% Christmas bonus for employees in 1973.

**G. EMCRO:** Dr. Winfred Lee reported the Ad Hoc Committee to Evaluate the Hawaii EMCRO Final Report met on several occasions and presented their report for Council review. There was considerable discussion. The Council agreed that the report should be reviewed and expanded to include some of the comments discussed and presented to Arthur D. Little and Company who is presently evaluating the EMCRO project.

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# Book Reviews

WINFRED Y. LEE, M.D.

HAWAII  
MEDICAL  
JOURNAL

## Pathology Annual, Vol. 7

*Edited by Sheldon C. Sommers, M.D., 426 pp., \$20.00, Appleton-Century-Crofts, 1972.*

THIS IS A collection of 14 reviews on various topics in pathology. There are several articles on subjects of current interest such as tissue grafts and kidney transplant. The chapter on recent concepts in the management of breast cancer and the role of pathologists in this aspect is timely and informative. It emphasizes the concept of team approach and the management of "minimal breast cancer." Another article of special interest is "Changing Pathology in the 1970's" which describes the role of pathologists in delivering health care, medical school curriculum, and superspecialization.

Most of the articles are well written and concise. It is recommended as a reference book on selected topics.

LINA YU, M.D.

## ★Minimal Brain Dysfunction

*Annals of New York Academy of Science, Vol. 205, March 1972.*

THIS IS A series of papers resulting from a conference on "Minimal Brain Dysfunction" held by the New York Academy of Sciences in March 1972.

There are papers by neurologists, psychologist, psychiatrists and educators. This is by far the best single book on the topic that I have seen. General discussions follow each of the subsections. There are excellent epidemiologic studies, outstanding presentations of some of the present conceptual models of the condition. Controversial aspects are heightened by the stature of the presenting scientists and the frequent general discussions.

Some of the more exciting points made were that the stimulant therapy seems to cut down on the chances for juvenile delinquency; the condition may well be diagnosed during the first year of life and treatment, even in these early stages, may be useful; fascinating relationship between the involvement of dopaminergic pathways producing hyperactivity in childhood and parkinsonism in adults; the elegant usability of the Halstead-Reitan battery as a longterm prescriptive, as well as diagnostic tool. The largest thread of controversy throughout the volume was a series of strongly worded papers by educators in which they outlined their objections to further attempts at medical diagnosis and labeling and treatment of these children. They seem to be stating that they would just as soon work on an educational level with these children and do this in a veritable vacuum.

This volume is must reading for anybody dealing with children with specific learning disabilities or minimal brain dysfunction.

JORDAN S. POPPER, M.D.

## Physician's Handbook

*By Marcus A. Krupp, Norman J. Sweet, Ernest Jawetz, et al. 17th ed. 727 pp., \$6.50, Lange, 1973.*

THIS POCKET BOOK contains an up-to-date compilation of diagnostic and therapeutic information for the house officer. Detailed charts, diagrams, and bedside procedures, and various laboratory procedures, are presented. Combined with the Washington Manual of Therapeutics, this handbook would be a great asset to the house officer's armamentarium.

PETER HALFORD, M.D.

★ means highly recommended.

## Is My Baby All Right?

*By Virginia Apgar, M.D., M.P.H., and Joan Beck, 492 pp., \$9.95, Trident Press, New York, 1972.*

THIS AMAZINGLY complete overview of congenital defects and other disorders in early life is an ideal reference book for the parent and paraprofessional. Cerebral palsy, diabetes, mental retardation, hemophilia, RH disease, sickle cell anemia, hearing loss are but a few of the many not too uncommon disorders which receive attention in this book.

The terminology is simple and the numerous illustrations informative.

This book is a must for the office library of every obstetrician, family practitioner and pediatrician. Hopefully the Medical Society will encourage the purchase of this book for the public school libraries as well.

SHARON J. BINTLIFF, M.D.

## Handbook of Ocular Therapeutics and Pharmacology

*By Philip P. Ellis, M.D. and Donn L. Smith, M.D., Ph.D., 4th ed., 262 pp., \$14.75, C. V. Mosby Company, 1973.*

THIS is an excellent work, well organized, logical, and concise. It is presented in a way that incorporates both a review for the reader as well as pertinent information on any drug, or its side-effect or synergism.

The section on the "Principles of antibiotic therapy" is excellent and the first I have seen pertaining to ophthalmic care.

The chapter on "Pre and Post Operative medications" is most useful and informative.

The text follows the pharmacology involved in each segment of the eye, such as cornea, iris, lens, retinas etc., again making easy and informative reading.

Section two of the text deals specifically with the Pharmacology of Therapeutic Agents in alphabetical order. Special attention is given to the correct dosages for children.

It would be at a great advantage for any ophthalmologist to have this work in his library.

PHILIP M. CORBOY, M.D.

## Eighth Conference Cerebral Vascular Disease

*By Fletcher H. McDowell and Robert W. Brennan, 319 pp., \$12.50, Grune & Stratton Inc., New York, 1973.*

THIS BOOK details the proceedings of the eighth Princeton Conference on cerebral vascular disease held in January 1972. The intent of the present and past meetings has been "to put in perspective advances in the understanding of cerebral vascular disease, pathophysiology, diagnosis and treatment and to review the important contributions." A group of 89 participants including neurologists, neurosurgeons, neuropathologists, radiologists, physiologists, pharmacologists, epidemiologists and internists from the United States and abroad took part in the sessions.

Many useful and practical aspects of cerebral vascular disease are reviewed and discussed. Examples of some of the varied clinical points mentioned include "patients for whom one contemplates doing major abdominal or thoracic surgery, who at the time of the initial examina-

*continued page 40*

# New Members

# HAWAII MEDICAL JOURNAL



**John H. Bowers, M.D.**  
P. O. Box 1266  
Kailua, Hawaii 96734  
GENERAL PRACTICE



**David Y. Kimura, M.D.**  
1481 S. King Street  
Honolulu, Hawaii 96814  
ORTHOPEDIC



**Rodrigo Goze Bristol, M.D.**  
1270 Queen Emma Street  
Honolulu, Hawaii 96813  
GENERAL SURGERY



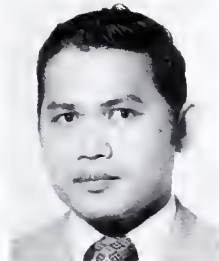
**Ronald P. Peroff, M.D.**  
550 S. Beretania Street  
Honolulu, Hawaii 96813  
OTOLARYNGOLOGY



**James Budde, M.D.**  
P. O. Box 730  
Kailua, Hawaii 96734  
GENERAL PRACTICE



**Ronald J. Pion**  
Kapiolani Hospital  
Honolulu, Hawaii 96814  
OB-GYN



**Salvador B. Cecilio, M.D.**  
916-A Kilani Avenue  
Wahiawa, Hawaii 96786  
ORTHOPEDICS



**David James Randell, M.D.**  
P. O. Box 730  
Kailua, Hawaii 96734  
GENERAL PRACTICE



**Leo M. Crowley, M.D.**  
P. O. Box 1266  
Kailua, Hawaii 96734  
GENERAL PRACTICE



**Stephen A. Ugelow, M.D.**  
364 Oomano Place  
Honolulu, Hawaii 96825  
GENERAL PRACTICE



**Robert J. Harrison, M.D.**  
130 Prison Street  
Lahaina, Hawaii 96761  
GENERAL PRACTICE



## Life in These Parts

In the wake of a most fascinating acupuncture lecture-demonstration at Queen's, moderated by **Al Chun Hoon**, **Willard Miyahira** related how while making hospital rounds recently, his patient's roommate was ecstatically acclaiming the merits of acupuncture administered by a Chinese doctor which had completely cured the headaches for which he had been hospitalized. Curious about the doings in the hospital, Willard checked the patient's chart and discovered that an intern had done an LP. . . .

As we impatiently queued in an intolerable procession of cars for our New Year's weekend gas, we listened to **Aku** comment on the times: "First, we had hijacking of booze trucks, next came hijacking of planes, and now we have hijacking of gasoline trucks." We finally reached the pumps. . . . The attendant was more curt than usual. . . . He failed to wipe the windshields or even vacuum the floors. We did not complain. . . . At least he perfunctorily checked the oil and battery fluid. . . . And oh so generously did he provide the few precious gallons of gas. So what if we were half an hour late for our office and hospital rounds. . . . We mused happily over the little advantages of the fuel crisis. . . . We can politely refuse that invitation in the country for dinner. . . . We would have good reason for not going down to the ER in the dead of night. (Anyway the HEPA physicians are doing a fine job). . . . There would be fewer reports to complete for nagging insurance adjusters and lawyers as there should be fewer cars on the roads which mean fewer rear-end collisions and fewer "whiplash" injuries. . . . But then on the deficit side, we are stuck with a gas eater with a depreciated turn-in value and we may have to take turns with fellow golfers for the twice weekly golf in Lanikai. . . . Fortunately we need not turn down any thermostats. . . . Lucky we live Hawaii. . . .

**Vic Mori**, a few months ago, had his shiny new lemon yellow 1974 Datsun 240-Z with his Ping's in the back stolen from his own drive-way in Nuuanu. When we inquired recently, we learned that the car was never found. But with the energy crisis, the Blue Book value was higher than the original price, and the insurance company happily obliged by getting a new car. Vic was happy although the color was not exactly the same and his home owner's coverage replaced his Ping set. . . . So all's well that ends well. . . .

## Professional Moves

As this year of ferment drew to a close, we still see changes going on in the medical community. In November, anesthesiologist **Takeshi Kishida** joined Anesthesia Inc. at 1741 Nuuanu and GP **Douglas Ostman** joined the Hawaii Permanente Group at 1697 Ala Moana Blvd. On Maui, **Mahmood Mirzai** joined **K. Izumi** and **Sakae Uehara** at 1939 Vineyard, Wailuku, Maui. We were quite intrigued by the following announcement: "**Glenn M. Kokame, M.D.** wishes to announce the relocation of his office to (address left blank)." On Hawaii, GP **Michael Cooper** joined the Hilo Medical Group, Inc. at 305 Wailuku Drive. Back in Honolulu, orthoped **David Kimura** joined **Gabriel V. C. Ma, Inc.** at 1481 So. King St. and **Minoru Kimura** announced that he would continue his practice at 1833 No. King Street.

In December, a **Keiji Jazawa** first announced that he was opening his office at 2519 Coyne St., and it later turned out to be OB Gyn man **Keiji Jazawa**. Internist **Eugene Matsuyama** opened at 2525 So. King St.; endocrinologist **Terry Chen Yi Wong** joined the Honolulu Medical Group; and **Peter Yap** moved to Kahala Office Tower #401 limiting his practice to "general practice specializing in acupuncture." We learned from the *Lee-ward Press* that **Mary Glover** was closing her Nanakuli office indefinitely because of "excessive governmental red tape and staffing difficulties," and that "she regrets having to close."

May the oriental zodiac bring less ferment in this coming Year of the Tiger than in 1973, the Year of the Ox. . . .

## Tom Thorson's Corner

A peanut vender wending his way was happily blowing his whistle. A youngster came up and asked why he blew the whistle so loudly. "Son, when you're my age and got hot nuts, you would blow your whistle too."

A burly hunter fresh from the Alaskan wilds was letting off steam in a bar. He boasted that he had never felt pain, except once. . . . "What happened?" the bartender asked. "Well, I kneeled over one day to take a crap and doggonit if one of my bear traps didn't happen to be below. . . . It snapped and caught me by the balls." Grimaced the bartender, "That must have hurt?" "Not till I reached the end of the chain." (Harry Arnold, Jr. added: "And he never felt pain henceforth. Like the time I took a sauna bath in Finland. . . . Now I can stand both extreme heat and extreme cold.")

## Sportsmen

Venturesome **Arno Mundt**, a staunch promoter of long distance biking, took a 19-hour round-the-island bicycle trip with his two teenage sons on a September Sunday. Arno found highway conditions in some areas hazardous for cycling and suggests that besides highway safety measures there should be hostels set up to encourage biking. "Crowded or no, tired or no, it was a wonderful experience. We really enjoyed ourselves," Arno commented. The trip started at 2:30 Sunday morning and ended at 9:30 p.m. with a two-hour break and 10 to 12 miles of walking around Kaena point.

While the Mundt's are a biking family, the **Hunky Chun's** (all eight members) are a jogging family known as the "Hunky Bunch." In the recent 26-mile "Rim of the Pacific" marathon held on Sunday, December 16, seven members finished. **Daven Chun**, 9, the baby of the jogging family ran the distance in 3:19.01 beating at the finish line his 14-year-old sister **June** who was still first in the women's division. **Jack Seaff** of Boston marathon fame ran with two of his patients from the cardiac rehab center. Out of a field of 167 participants, 151 finished. **Jim Bennett**, Kaiser pathologist, who at 58 was the oldest entry, got up at dawn, finished the marathon, charged off to Aiea Haina to play mountainball and then returned home to get in two sets of tennis. **Duncan McDonald**, 2nd year student at UH Med School won the event with a record time of 2:27.34. Some cycle, others jog and still others play handball. In the recent YMCA Class C Handball Tournament, **Bill Morioka** got to the finals and was psyched out by a psychologist.

Karate instructors **Millard Seto** and **Kiyoshi Hirano** warned in a letter published in the November issue of *JAMA* that unless there is better supervision of karate instruction, there will be increased injuries among those taking karate. . . .

Aikido student **Hideo Oshiro** (who originated the "Ki" system of golf) left for Tokyo in December for a personalized two week course in Aikido from the grand master of Aikido himself. . . .

## Elected, Honored, and Appointed

We wish to congratulate the following new slate of officers of the HCMS: **Bill Moore, Jr.**, the new president, **Al Chun-Hoon**, president-elect, **Douglas Bell II**, secretary and **Ann Catts**, treasurer (our first woman officer). The Hawaii Academy of Family Physicians elected **Rosecoe S. Pebley**, president, **Doris Jasinski**, president-elect, **Donald Farrell**, secretary, and **J. I. Frederick Reppun** will continue as treasurer. **Mary Glover**, **Harold Machigashira** and **Lincoln Luke** and **Leslie Vaseonsellos** are councillors. The American Academy of Family Physicians (AAFP) named **Norberto Baysa** and **Joseph Mark Sowers** Fellows of AAFP.

**Gail G. L. Li** and **Ralph W. Hale** were elected chairman and vice chairman of the Hawaii Section of the American College of Obstetricians and Gynecologist for the next three years. **Henry Oyama** was elected to the board of directors of Kuakini Hospital. **Eugene G. C. Wong** was named to the hypertension information and education advisory committee of the U.S. Department of Health Education and Welfare.

**John F. McDermott**, chairman of the UH Med School psychiatry dept. was elected chairman of the National Committee on Certification in Child Psychiatry of the American Board of Psychiatry and Neurology. John is in charge of a 3-year national survey studying ways to improve training and a possible required recertification of child psychiatrists every five years.

Acting governor **George Ariyoshi** named **George M. Takushi** and **Allan Leong** to the State Board of Health.

We learned that **Marie Faus** is one of two remaining charter members of the Zonta Club of Honolulu which celebrated its 50th anniversary in November.

**Drake Will**, chief pathologist at Queen's Medical Center was elected in November to the American Cancer Society's National Board of Directors in New York City. Drake, present president of the Hawaii division, was designated a medical delegate director for a one-year term.

**Richard K. C. Lee**, former dean of the School of Public Health (1965 to 1969) and presently executive director of the University of Hawaii Research Corporation received an honorary degree from Tulane University in November.

In November, Honolulu was picked as one of nine areas to have a breast cancer detection demonstration program utilizing the best in screening technology by the American Cancer Society and the National Cancer Institute. The Pacific Health Research Institute, of which **Fred Gilbert, Jr.** the medical director, was designated as the principal investigator. The PHRI plan is expected to start in early January if equipment arrives on time. Under the plan, 5,000 women 35-years and over will be screened the first year from a broad socio-economic and ethnic cross section. The screen will include a thorough clinical examination, mammography and thermography.

## Entrepreneurs

The *Hawaii Times* calls **Yorio Wakatake** "a triple success man" viz a successful physician, a proficient aikido exponent and a successful businessman. His newest venture in the business world is as a stockholder-officer of the great floating restaurant "Oceania" moored at Pier 6. Meanwhile Yorio is developing a fourth proficiency in conversational Chinese.

Other physicians who have appeared in print recently for their business acumen included **Philip J. W. Lee** who owns the Investor's Finance Building on Hotel and Bishop Sts. where Telccheck International, Inc., recently offered to sublease its holdings on the 3rd, 4th, and 5th stories for \$100,000 minimum in cash. Phil purchased the building about two-years ago from Investors Finance Corp. In July, **Richard S. F. Lam** and hui purchased the 50-unit Crown Thurston Apartments at 1574 Thurston Ave. from Crown Properties, Inc. for \$2 million. He is studying the feasibility of converting the units to condominiums. On Maui, the **John Behnkes** and the **Robert Mosers** are investors in a \$250,000 350-seat movie theater to be built near the Kahului Shopping Center. **Bernard W. D. Fong** is on the board of trustees of a recently proposed multi-million dollar health and seminar center for heart specialists in Mahukona, North Kohala. The developer is the International Heart and Lung Institute, Inc., a California physician corporation whose president and three vice presidents are all physicians. The institute proposes to "operate an advanced medical research training facility for the training of doctors and other subordinate personnel in the cardio-pulmonary sciences" and attract physicians and heart specialists from throughout the U.S., Asia and the Pacific Basin. The parcel of land was donated by the Kohenia Beach Inc., a Honolulu firm which also owns the surrounding 200 acres and plans 32 acres for hotel sites, 122.5 acres for condominiums and more than 100 acres for an 18-hole golf course. An institute officer is planning to raise \$2.5 million in a period from October to April of 1974 for the proposed project.

Advertiser columnist **Dan McGuire** described baseball fanatic **David Eith's** antics: "New Yorkers, who are used to just about anything, blinked a bit last week when they saw a distinguished looking man riding the subway with a large chair clutched to his chest. 'Twas only Dr. David Eith, the baseball fanatic of Honolulu's Straub Clinic. . . . Dave went out to Yankee Stadium, which is being completely redone, and bought one of the old box seats for \$20. He almost paid \$100 for a faded mural of Lou Gehrig, but decided the chair would be a more practical keepsake. Strangely enough, he was always a Yankee hater as a kid—'because they won too much.' But he figured the House That Ruth Built will live in history and he wanted to have a part of it. . . ."

From **Dave Donnelly's** column in the *Star-Bulletin*, we gleaned the following: "We don't want the identities of this year's Mr. and Miss Nude Hawaii to slip past you. UH sophomore **Irene Centeior** was named Miss Nude Hawaii at the Hawaii Nudist Park's annual contest—rumor has it that Ka Leo wants to do a centerfold featuring Irene. And Mr. Nude Hawaii is Kaiser physician **Dr. John Corboy**. Wonder if it'll help his practice?"

## Personal Glimpses

On a recent Kuakini executive medical tour of Japan, **Ike Kawasaki's** spouse, **Ruby**, debated whether or not to spend 500-yen for a good luck charm (Omamori) at a Miyajima shrine. Ike, an avid fisherman, of late had been having a bit of bad luck, so we encouraged Ruby to make the purchase since the inscription promised bountiful harvests. So the day after getting back, Ike, time lag or not, went fishing with the good luck charm adorning his 21 footer. And by Gad! he returned that evening with more fish than he could store. For our advice, we received a prize specimen, a 10-lb. wekeula, as promised by Ruby. . . .

**Edgar Childs**, Kuakini radiologist, is an avid student of the Japanese language. He would avail himself of every new Japanese-English dictionary he could buy and study till late every night. . . . One evening, he discovered the term 'okubi' to mean burp. In our ignorance, we informed him that the dictionary was wrong and that it probably meant 'akubi' which means yawn. Edgar consulted his several dictionaries and sure enough 'okubi'



was a classical term for burp, which we commonly know as "geppu." Edgar plans to use 'okubi' for his patients . . . but heaven forbid should his peasant class patients start yawning instead of burping after swallowing the barium. . . .

Recently at the **Yutaka Yoshida's** artistic home nestled next to the Nuuanu water shed, we saw two **Ed Yamada** oils adorning the walls. One, a Conklin type seascape with waves dashing violently on a reef and the other, an idyllic southsea seascape with a junk silhouetted against the darkening evening sky. . . . We knew Ed as a *McKinley Daily Pinion* sports editor and a staff artist but did not realize he was this talented. . . . We cornered him in the hospital corridor and he promised us his next oil which he will do as soon as he retires and has some spare time . . . which may be never . . . but we can hope. . . .

Somehow the conversation led to dogs and toads. . . . **Doris Jasinski** had a favorite Pomeranian pup which took it upon himself to chew on a toad one day. It went into shock soon thereafter. . . . Remembering her training, Doris, in the best of CPR tradition first administered atropine in the form of *Elix Donnatal* while **Cas** scurried around for his medical bag and gave the pup some more atropine by hypo. The pup stopped breathing. Without a moment's hesitancy, Doris administered mouth to nose-mouth breathing. The pup survived. When asked how she managed the mouth to mouth, she explained, "Its nose and mouth were so tiny, it was easy to get my mouth over both its nose and mouth. . . ." Thus, another victory for CPR training. . . .

## Miscellany

"Who would you prefer to make love to?" "A school teacher." "Why a school teacher?" "When you make a mistake, they make you do it right over and over again." (A Lippy Espinda joke heard by **Irene Wong**.)

A neophyte lion tamer was having difficulty with a belligerent male lion. . . . The circus manager was watching and became frustrated by the tamer's antics. "Eliza, show him what you can do . . ." he motioned to his curvaceous bareback rider. . . . Eliza entered the lion's cage, removed her costume and the lion forthwith became friendly, lay down next to her and began to purr like a kitten. . . . The manager turned to his lion tamer, "See how easy it is? Why can't you do the same?" "Well, I will, if you'll just get the lion out of there." (A Bishop Hanchett joke heard by **Jon Won**.)

A psych prof had a pet theory that the oftener couples had sex, the happier they are. He decided to test this theory on his adult education class and asked for a show of hands. . . . "All those who have sex every night." A quarter of the class beaming happily raised their hands. . . . "All those having sex 2 or 3 times a week?" Another group raised their hands, still smiling happily. . . . "All those having sex once or twice a month?" An unhappy group raised their hands . . . and so it went. . . . One last member of the class had not responded, so he finally asked, "Anyone having sex only once a year. . . ." The last member raised his hands excitedly, beaming broadly from ear to ear and chortling with joy. . . . The prof was taken aback for this demonstration shattered his theory. . . . "Why so happy?" "Tonight's the night!" came the excited reply. . . . (**Jon Won**.)

## Hors de Combat

When Hilo physician **John Jenkin** turned a 3-year-old unpaid \$25 bill over to a collection agency, the patient went on a rampage damaging the doctor's office windows and door. The damage was estimated at \$367.

*Advertiser* columnist, **Tom Horton**, cautions: "Kapiolani Hospital's family planning dept. that has been

promoting an emergency Morning After Pill for women worried about something more serious than a hangover—is closed on weekends. But **Ralph Hale** had to spoil the irony of it all by explaining, 'You have three days, after being exposed, to take the Morning After Pill.' Beware, however, the three-day weekend."

Back in May during the Hawaii Heart Association's annual dinner at the Cannon Club, **Mrs. James Orbison** collapsed when a piece of roast beef lodged in her windpipe when prompt resuscitation efforts by cardiologists **Sam Gresham** and **Jack Scaff**, seated at her table, failed, thoracic surgeon **Judson McNamara**, the only surgeon among the 100 guests, was hailed from a table across the room. By candlelight and on the dining room floor Judson performed an emergency tracheotomy with a tiny pocketknife fastened to a money clip (an earlier souvenir from the American Heart Assn.) and was able to dislodge the meat so she could breathe again. When Helen Orbison recovered she said, "It's a miracle . . . nothing short of a miracle." Judson modestly said, "It was as much good fortune as anything else. . . . There was no lighting to speak of, and all I had was this penknife which is attached to a money clip I carry. It's dull, but a lot sharper than a dinner knife." The rescue done, the meeting went on, but as someone observed, "That, really was a hard act to follow."

Before he had a triple bypass operation in 1972 at the Texas Heart Institute in Houston by **Denton Cooley**, Hilo physician **Reginald Carvalho**, 37, who had suffered three heart attacks in 18 months, had difficulty getting from his car in the parking lot to Hilo Hospital. Today he jogs, builds fences, cares for his horses, and has gradually resumed a fulltime practice, all within a year since the surgery. Reginald was chosen the "1973 Heart of the Year" by the Big Island Heart Association. . . . Reggie has lost weight, given up smoking and avoids starches in his diet, but flatly refuses to embrace any of the several diets strongly advocated by health advisors and does not ascribe the rising frequency of attacks in young men to any single factor.

## Aetna Medicare Review Committee Meeting (Dec. 13)

The first item on the agenda was the year-old running battle between **LQ Pang** and Chairman **Gabe Ma** regarding abnormal EKG's among Medicare patients. Gabe contends that nearly everyone of Medicare age has an abnormal EKG. LQ (who is in this category) contested this broad statement and maintains that his own EKG is normal. They had wagered a dozen golf balls and to date the argument had not been settled simply because LQ would not get an EKG. LQ finally had his EKG taken at St. Francis this month so Gabe purchased a dozen balls from the pro shop (at the pro shop price of \$15.50) for the occasion. . . . But alas! LQ was not present and no EKG was available for adjudication by the internists in the committee. **Bernie Fong** who apparently had seen the EKG tracings, proclaimed, "I saw one PVC and that makes it abnormal."

Between case reviews, we learned from **Ted Tseu** that he had gone fishing with **Dick Sakimoto** on his Kamome for a 5-day fishing trip off Niihau over the Labor Day weekend and their total estimated catch was over a 1000 lbs. of fish, including 8 giant sea bass, a 100 lb. kahala, 12 ono weighing 40 lbs. apiece, countless onaga and nehu, and 2 large coolers full of mempoichi and uhu. Ted promised us, **Henry Fong** and **Bill Dang** that the next time he comes into port with such a catch, we would get phone calls to help divvy up the fish. . . .

Between mouthfuls of Byron II steak and lobster, the conversation led to the untimely death of **Stan Kobashigawa**. We learned from **Bill Dang** that Stan was his high school classmate at St. Louis. We were even more astonished to learn that the Class of '44 of 155 graduates produced at least 11 locally practicing physicians, among whom are **Pat Lai**, **Dick Lam**, **Philip Watt**,



Herb Enke, Dick Mamiya, Kenneth Ching, Dick Omura, Kaoru Sasaki, Carl Lam, Bill Dang and the late Stan Kobashigawa. Ted Tseu facetiously commented that with the wartime blackout, there was nothing to do but study. . . .

Gordon Liu reviewed the case of an elderly patient with emphysema and pneumonia which had been questioned for the frequency of visits. . . . The irate attending wrote: "One of these days, one of these patients will sue us for sending them home too early. When that day comes, you can be a codefendant. . . ." (This remark is confusing because HMSA, not Aetna is responsible for hospital length of stay review) Aetna director Bob Gratwahl said philosophically: "There are millions for defense, but nothing for treatment." Gordon concluded that we should pay for the visits. . . .

Then it was joke telling time . . . Bernie Fong told the following:

"A Pollock stepped into a bar for a drink. Two haole guys came in after him so he decided to observe how they ordered their drinks. . . . The first guy yelled, "Hey bartender, give me an 'SS.'" He got his scotch and soda forthwith. . . . The second guy ordered, "I want an 'SW'" and got his scotch and water. The Pollock got the idea and stepped up to the bar. "Hey bartender, give me a '15'." The puzzled bartender asked, "What's a '15'?" Explained the Pollock, "That's seven-seven." The bartender growled, "Seven and seven makes 14." "Well," conceded the Pollock, "I was only off by two."

Gabe Ma followed this one with another racial joke: A Pollock, a Hawaiian and a Filipino went fishing. While out on the briny deep, the Pollock discovered a leak, but he was so busy gabbing that he forgot to swim and drowned. The Hawaiian was so relaxed that he refused to swim and so drowned. The Filipino drowned because no one told him that he was supposed to swim. . . ."

This being the last meeting for the present committee, Gabe Ma who had chaired with such superb proficiency for the past 3-years gave a farewell speech. . . . "This may be the last meeting of the Gabe Ma gourmet club. . . . Thank you all for serving so diligently and faithfully. . . . And Merry Christmas to you all. . . ." Bless his soul. . . .

## Community Notes

At a November ceremony our editor-in-chief Harry Arnold, Jr. presented painter Patric's portrait of his father Harry Arnold, Sr. to Straub Clinic. Harry Arnold, Sr. joined the clinic in 1921, spent 46-years in active practice and saw the clinic grow from a staff of five physicians and 100 patients daily to fifty doctors and 1,000 patients a day. He wrote "Poisonous Plants of Hawaii," was president of the Honolulu County Medical Society, and of the Territorial Medical Association, and Chief of Staff at Queens. Bill Hartwell, a senior Straub associate spoke of Dr. Arnold's honesty, administrative ability, scientific scholarship and hobbies. And quoted appropriately from Chaucer's *Canterbury Tales*, "And gladly wold he lern, and gladly tech."

The trustees of Kapiolani Children's Hospital agreed to the creation of an independent Pacific Institute of Rehabilitation Medicine at the present Children's Hospital site when Children's relocates to Kapiolani Hospital. PIRM will thus become a separate corporation and will get full use of the five-acre site.

The Makana Foundation received a \$35,000 public service grant from RMP of Hawaii which will be used to educate the community about tissue transplantation and expand its own donor registry.

The Kapiolani and the Kapiolani Children's hospitals announced their plans for a joint \$11-million building program. The new complex will be called The Kapiolani-Children's Hospital Medical Center, will maintain their autonomy, and will be completed by 1976.

## Physicians Speak Up

Neal Winn, director of the Waikiki Drug Clinic, estimates that there are about 5,000 female drug abusers in their reproductive years in Hawaii. Neal feels that these women risk giving birth to abnormal infants with chromosome damage and congenital defects and that they also gamble on having baby addicts who may not have withdrawal symptoms until a week after birth.

Cardiologists Alfred Morris, Danelo Canete, Samuel Gresham, and (RN) Mrs. Sandra Gresham were on the panel of Part I of "The Killers," the first of five documentary TV programs on serious health problems produced by WNET New York Science Program Group for the Public Broadcasting Service. Part I of "The Killers" devoted to heart disease was shown on Channel 11 in November.

Scholar Harry L. Arnold, Jr. wrote to Tom Horton, *Advertiser* columnist: "If leprosy comes up again, please don't feel called on to call it Hansen's disease. Now that leprosy is curable and doesn't require isolation, it isn't the horror word it was, and nearly everyone who works with it agrees it's best to call it by its regular name—as we've managed to do with syphilis, tuberculosis, and cancer, all of which were once unmentionable and all of which are now household words. Do please, however, avoid the word 'leper.' It has become a very objectionable word indeed, with highly offensive implications. Even those of us who are most against Hansen's disease feel equally strongly that 'leper' is a no-no. 'Leper settlement' should read 'leprosy settlement'; 'leper' equals 'leprosy patient' or 'leprosy victim.' Often enough, merely 'patient' will do. . . ."

"Writer Cynthia Eyre wrote an article in *Honolulu* entitled "The Buss" and asked Harry Arnold, Jr. for comment about social kissing. She wrote, "and his reply was downright dour: 'There are two diseases that can be transmitted by the damp mouth kiss. One is infectious mononucleosis that leaves you limp and slightly feverish for an undetermined time. . . .' The other disease spread by the damp mouth kiss is syphilis but syphilis is rare in the islands and one shouldn't worry too much about that old bugaboo. The social kiss on the cheek is more innocuous than the handshake, where a lot of really dreary germs reside. All it takes is one good, lively flu bug living it up on the damp palm of Mr. X to be transmitted to Madame Y via her hand to her mouth or nose, to really lay her up. However, we should not give up skin contact: There are emanations from finger tips that are good. You can tell a lot about people when you shake their hands. They reveal themselves as cold, nervous, vibrant, strong, weak, wishywashy, or warm human beings."

Writes Mary Glover from Waianae: "Ingenuity and creative thought: these qualities have seemed scarcer in America in recent years. I cannot believe that they have vanished. So, here we are on an island with trade winds. There was one windmill in Punaluu which transformed energy for its owner within the recent past. Evolution will eliminate for us the sheltered souls who must live in artificially air-conditioned environments. We have had over a hundred years to contemplate the energy at hand in the volcano. Let's use our ingenuity!"

Then, Audrey Mertz writes to the *Hawaii Tribune-Herald* Editor in support of fluoridation. "Fluoride is an essential element of the human body, needed for growth, and health. . . . Hawaii is an area where the naturally occurring fluoride is at low levels. . . . Boosting the amount of fluoride in water to an optimal level would provide the protection against tooth decay that now is enjoyed by 9,000,000 people in the United States who happen to live in areas with optimal fluoride naturally occurring."

Milton Diamond, professor of anatomy and reproductive biology at the UoH told the Hawaii Psychological Association at the Straub Hospital in November that a

*continued page 38*



# ***It's time for action to defend the laws and regulations that protect your patients against drug substitution.***

**These professional and trade organizations are united  
in supporting antisubstitution statutes and regulations:**

The American Academy of Dermatology

The Board of Directors of the  
American Academy of Family  
Physicians

The Executive Board of the  
American Academy of Neurology

The Committee on Drugs of the  
American Academy of Pediatrics

The American College of Allergists

The Executive Committee of the  
American College of Obstetricians  
and Gynecologists

The Board of Regents of the  
American College of Physicians

The Board of Trustees of the  
American Dental Association

The Board of Trustees of the  
American Medical Association

The American Psychiatric Association

The Executive Committee of the  
National Association of Retail  
Druggists

The Board of Directors of the  
Pharmaceutical Manufacturers  
Association

The National Wholesale Druggists'  
Association

## Joint Statement on Antisubstitution Laws and Regulations

The purpose of this statement is to affirm the support of the participating organizations for the laws, regulations and professional traditions which prohibit the unauthorized substitution of drug products.

Traditionally, physicians, dentists and pharmacists have worked cooperatively to serve the best interests of patients. Productive cooperation has been achieved through mutual respect as well as a common concern for the ideals of public service. This mutual respect has been reflected, in part, by joint support over the years for the adoption and enforcement of laws and regulations specifically prohibiting unauthorized substitution and encouraging joint discussion and selection of the source of supply of drug products. The basic principles of medical, dental and pharmacy practice are thus utilized and preserved in the interest of patient welfare.

The antisubstitution laws have not obstructed enhancement of the professional status of pharmacy any more than they have in and of themselves guaranteed absolute protection from unsafe drugs, or freed physicians, dentists and pharmacists from their responsibilities to patients. As a practical matter, however, such laws and regulations encourage interprofessional communications regarding drug product selection and assure each profession the opportunity to exercise fully its expertise in drug usage, to the advantage of patients.

Physicians and dentists should be urged to increase the frequency and regularity of their contacts with pharmacists in selection of quality drug products, recognizing that

economies to patients can be improved through such communication, taking into account the patients' needs. The pharmacist's knowledge of the chemical characteristics of drugs, their mode of action, toxic properties and other characteristics that assist in making drug selection decisions should be utilized to the fullest extent practicable by physicians and dentists in serving their patients.

Since drug product selection entails knowledge derived from clinical experience, the physician's and dentist's roles in product selection remain primary and do not permit delegation of decisions requiring medical and dental judgments. A broader role in therapy will evolve for pharmacists as improved understanding and cooperation among the professions continue to grow.

There has been no evidence that there are convincing reasons to modify or repeal existing laws and regulations prohibiting the unauthorized substitution of another drug product for the one specified by a prescriber. It is our belief that such laws and regulations merit the joint support of the medical, dental and pharmaceutical professions and the pharmaceutical industry.

Add your opinion to the weight of other professionals and send it to your state assemblyman or legislator.

*Pharmaceutical Manufacturers Association  
1155 Fifteenth Street, N.W., Washington, D. C. 20005*





survey of 1,579 women who either had babies or had abortions during a two-month period in 1971 in Hawaii showed that 58% or 916 had not planned to get pregnant. Of this group, 1,276 women decided to have their babies, while 303 had abortions.

At Christmas time, our State Health Director **Walt Quisenberry** clearly warned that some Christmas toys pose serious threats to toddlers between 2 and 4. These include skates, tricycles, toy cars, trucks, wagons, skateboards and riding toys. He also cautioned that in preparing Christmas food for large numbers of persons, special cautions should be taken in preparing poultry, meat, eggs, and pastry mixes.

## HCMS Board of Governor's Meeting Notes (Dec. 18)

Prexy **Bill Moore**, taking the gavel for his first meeting, proposed a novel format called "5 minutes a month on what your society does for you." Bill proposes that physicians take 5 minutes each month to point out the benefits they derive from the medical society, eg, that no malpractice suits reviewed by the medical practice committee have gone to court since 1969.

The Board unanimously approved the ad hoc DDD Golf Committee except for the sole dissenter, **Al Pavel**, who growled, "I hate golf." Al being a sailor, **Andy Morgan** proposed an ad hoc sailing tournament committee. . . .

re, the proposed HCMS officers' retreat to Kulima in February. **Pat Walsh** suggested, "We (referring to the entire Board of Governors) like retreats too. . . . Bill acquiesced, "We have to think about that." With attractive **Ann Catts** the first and only woman officer, someone secretly wondered who was supposed to share a room with her. . . .

re, the poor attendance at monthly meetings and the proposal that we have fewer meetings per year: **Andy Morgan** voiced, "I still say if you talk about taking money out of our pockets, you'll fill them up. . . . Either that or you have talks about sex and malpractice suits."

**Jon Won** spoke at length on the AMA Anaheim sessions esp PSRO. **Pat Walsh** whispered, "Tom Thorson calls it the Pisseroo." Jon reported on the new AMA policy. re, the PSRO, to wit:

The medical profession is committed to the principle of peer review under professional direction. . . .

The implementation of the PSRO should not dismantle effective medical society progress. . . .

Each hospital staff should continue to develop its own peer reviews. . . .

Local and state medical societies should take legal steps to prevent intrusion of 3rd party into the practice of medicine. . . .

The House of Delegates will work to inform the public and legislators about the potential deleterious effects of this law on the quality, confidentiality and cost of medical care. . . .

The House of Delegates felt that the best interests of the American people could be served by a repeal of the present PSRO legislation.

The Board of Trustees and the Council on Medical Service recommended to the House that the AMA continue to exact its leadership and support constructive amendments to the PSRO and continue to help develop appropriate rules and regulations. . . .

## Miscellany

**Tom Thorson** says, "You know what bureaucracy is? Its a game played by people. . . . The first who makes a move loses. . . ."

## Announcements

### COURSE IN DIVING MEDICINE

Conducted by the Department of Physiology of the University of Hawaii School of Medicine, February 23 to March 2, 1974, under direction of **Richard H. Strauss, M.D.**, associate professor of physiology and physician for University diving activities.

The bulk of the course will be conducted on the Kona Coast of the Big Island, with the final two days in Honolulu for access to hyperbaric (high pressure) facilities.

Hawaii physicians interested in participating should contact **Dr. Strauss** at the Department of Physiology.

The course will cover diving physiology, decompression sickness, air embolism, barotrauma, oxygen toxicity, nitrogen narcosis, saturation diving, breath-hold diving, marine hazards, hyperbaric medicine and examination of divers.

### COURSE IN LARYNGOLOGY AND BRONCHIOESOPHAGOLOGY

The Department of Otolaryngology, Abraham Lincoln School of Medicine of the University of Illinois and the Eye and Ear Infirmary of the University of Illinois Hospital, will conduct a continuing education course in Laryngology and Bronchoesophagology March 18 to 23, 1974.

Write the Department of Otolaryngology, Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, Illinois 60612.

### ADVANCED CONTINUING EDUCATION WORKSHOP "PLASTIC SURGERY OF THE AGING FACE"

The Department of Otolaryngology, Abraham Lincoln School of Medicine of the University of Illinois (in cooperation with the American Academy of Facial Plastic and Reconstructive Surgery, Inc.) will present a multidisciplinary workshop in facial plastic surgery June 1 through 5, 1974.

Write the Department of Otolaryngology, Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, Illinois 60612.

### PHYSICIAN EDUCATION PROGRAM IN FAMILY PLANNING AT UCLA

Sponsored by the American College of Obstetrics and Gynecology. Approved for credit by the American Academy of General Practice. A one week, no tuition, seminar, March 11-15, 1974, covering the areas of Clinical Contraception, Family Planning Administration, and Human Sexuality. After attending the seminar physicians have the option of returning for 2-4 days of clinical skill development (no tuition) and/or learning surgical procedures (tuition). For more information contact **Irvin M. Cushner, M.D.**, OB-GYN Department, UCLA, Center for the Health Sciences, Room 24-139, Los Angeles, California 90024. Telephone: (213) 825-1046.

### XII INTERNATIONAL CONGRESS ON DISEASES OF THE CHEST

Sponsored by the International Academy of Chest Physicians and Surgeons, affiliated with the American College of Chest Physicians, the Congress will be held at Royal Festival Hall, July 7-12, 1974 in London, England.

For registration and fee information write: XII International Congress of Diseases of the Chest, c/o American College of Chest Physicians, 112 East Chestnut Street, Chicago, Illinois 60611.

### AMERICAN COLLEGE OF PHYSICIANS HAWAII REGIONAL MEETING

Specialists in internal medicine and related medical fields will hold a two-day scientific meeting on Feb. 25-26, 1974, in Honolulu, Hawaii.

In charge of arrangements for the ACP Hawaii Regional Meeting is **Bernard W. D. Fong, M.D.**, Honolulu, Hawaii, who serves as the ACP's representative in the State of Hawaii.



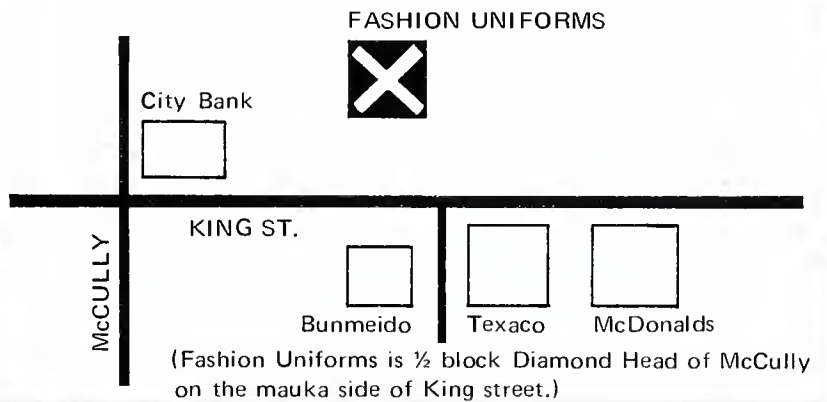
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## Hawaii Medical Ass'n continued from 29

### ACTION:

Drs. Winfred Y. Lee, J. I. F. Reppun, and William E. Iaconetti were appointed to review the report.

H. PSRO: Dr. Lee reviewed the activities of the Foundation Board regarding PSRO. Letters to and from Dr. Frissell regarding PSRO were distributed.

I. Other Committees: Working policies for HMA were distributed to the Council and each member was asked to submit additional information for the handbook. Mr. Thorson reported on the EMS Project. Dr. Batten reported that the Ad Hoc Committee on the Cancer Research Center Site is considering the Mabel Smyth Building site for their administrative offices. Further meetings are planned.

J. AMA Meeting: The AMA meeting will be held in Anaheim on December 1. The Council requested the AMA Delegate to confer with the California delegation requesting the addition of more practicing physicians on the Council of Medical Education.

The meeting adjourned at 10:45 p.m.

R. VARIAN SLOAN, M.D.

### Book Reviews continued from 30

tion had carotid bruits may be benefited if you operate on the carotid lesions first." In the aneurism project study it was pointed out that "we are still faced with a disease which has nearly a 75 percent mortality for which we have no effective means of treatment." Whether hypotension, bed rest, carotid ligation, or intracranial approach is best is apparently still not entirely decided in the treatment of cerebral aneurisms.

The book in general is of good quality and produced on fine paper. The black and white photographs are clear and adequate. This Eighth Conference of Cerebral Vascular Disease will be of interest to radiologists, internists, medical and surgical neurologists.

STANLEY BATKIN, M.D.

### NEW LITERATURE SEARCHES HAWAII MEDICAL LIBRARY

A copy of each of the bibliographies listed below is on file at the Honolulu Medical Library. These bibliographies may be used at the Library or photocopied. Prior literature searches covering many aspects of medicine are also available. All of these bibliographies can be updated through MEDLINE and SDILINE—the computer services available at the Library.

LS NO.	TITLE
73-19	Health aspects of prison populations. January 1970 through May 1973. 302 citations.
73-20	Cholelithiasis: etiology and drug therapy. January 1970 through July 1973. 147 citations.
73-21	The microwave oven. January 1970 through July 1973. 37 citations.
73-22	Adverse effects of intrauterine devices. January 1970 through July 1973. 372 citations.
73-23	Nomenclatures, subject headings, and classifications. January 1970 through July 1973. 511 citations.
73-24	Rape. January 1970 through June 1973. 64 citations.
73-25	Adverse effects or toxicity of implant materials. January 1970 through June 1973. 215 citations.
73-26	The hospital emergency room. January 1970 through June 1973. 194 citations.
73-27	Laparoscopic sterilization. January 1970 through July 1973. 80 citations.
73-28	Child abuse. January 1970 through July 1973. 303 citations.
73-29	Chemistry of common poisonous plants. January 1970 through July 1973. 156 citations.
73-30	Chagas' disease. January 1970 through July 1973. 404 citations.

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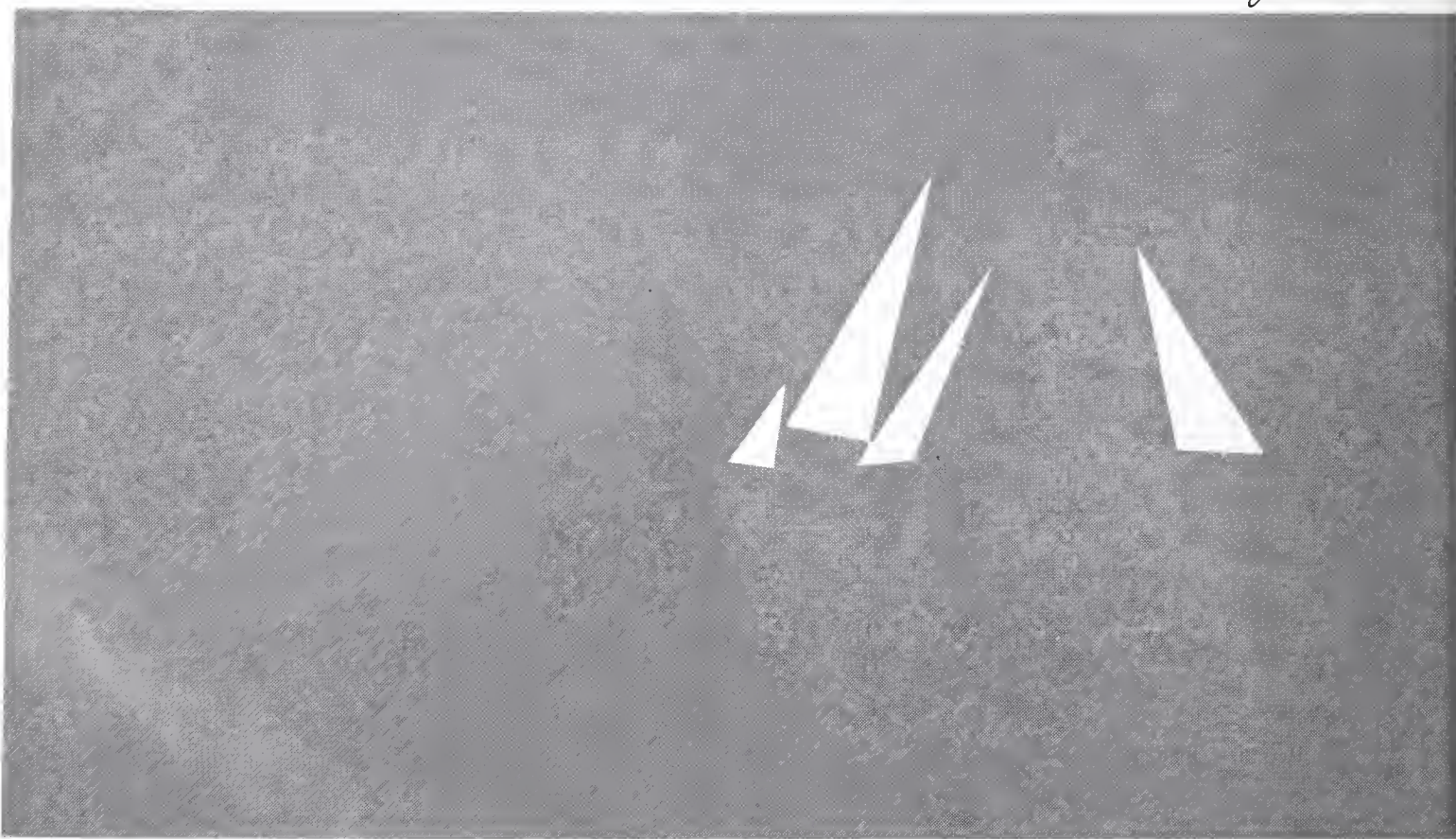
Dr. Irvine Schulman  
Chairman, Department of Pediatrics  
Stanford University

Dr. George Gregory  
Associate Professor of  
Pediatrics and Anesthesiology





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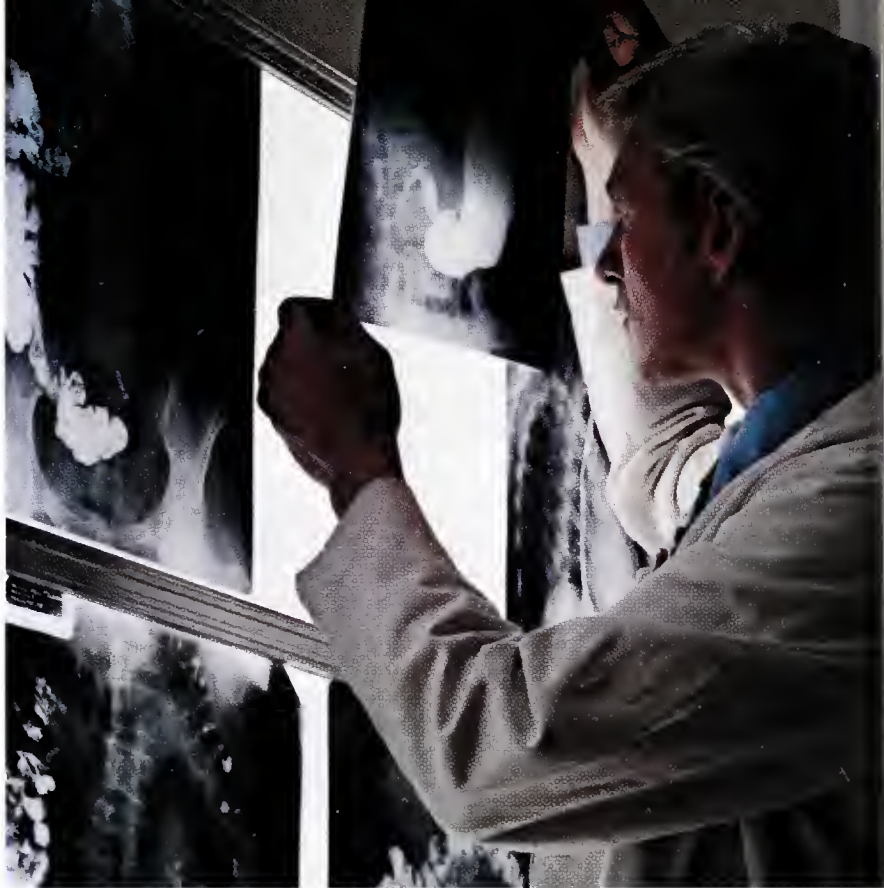
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of organic findings,  
underlying  
anxiety may be  
one factor**



**The influence of anxiety on gastrointestinal function.** Excessive anxiety and tension can adversely affect the function of any portion of the gastrointestinal system. Complaints are varied, e.g. epigastric pressure, heartburn, ulcer-like pain, diarrhea, etc. A vicious circle may develop in which anxiety and G.I. disorders intensify each other.

Prime objectives of total patient therapy include: symptomatic relief, removal of apprehension about organic disease and helping the patient understand how excessive anxiety may trigger physical

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**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Relief of anxiety and tension occurring alone or accompanying various disease states.

**Contraindications:** Patients with known hypersensitivity to the drug.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

**Precautions:** In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, in combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions.

complaints. Brief counseling and the utilization of favorable factors in the patient's personality and environment can often provide needed support.

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in the presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

**Adverse Reactions:** Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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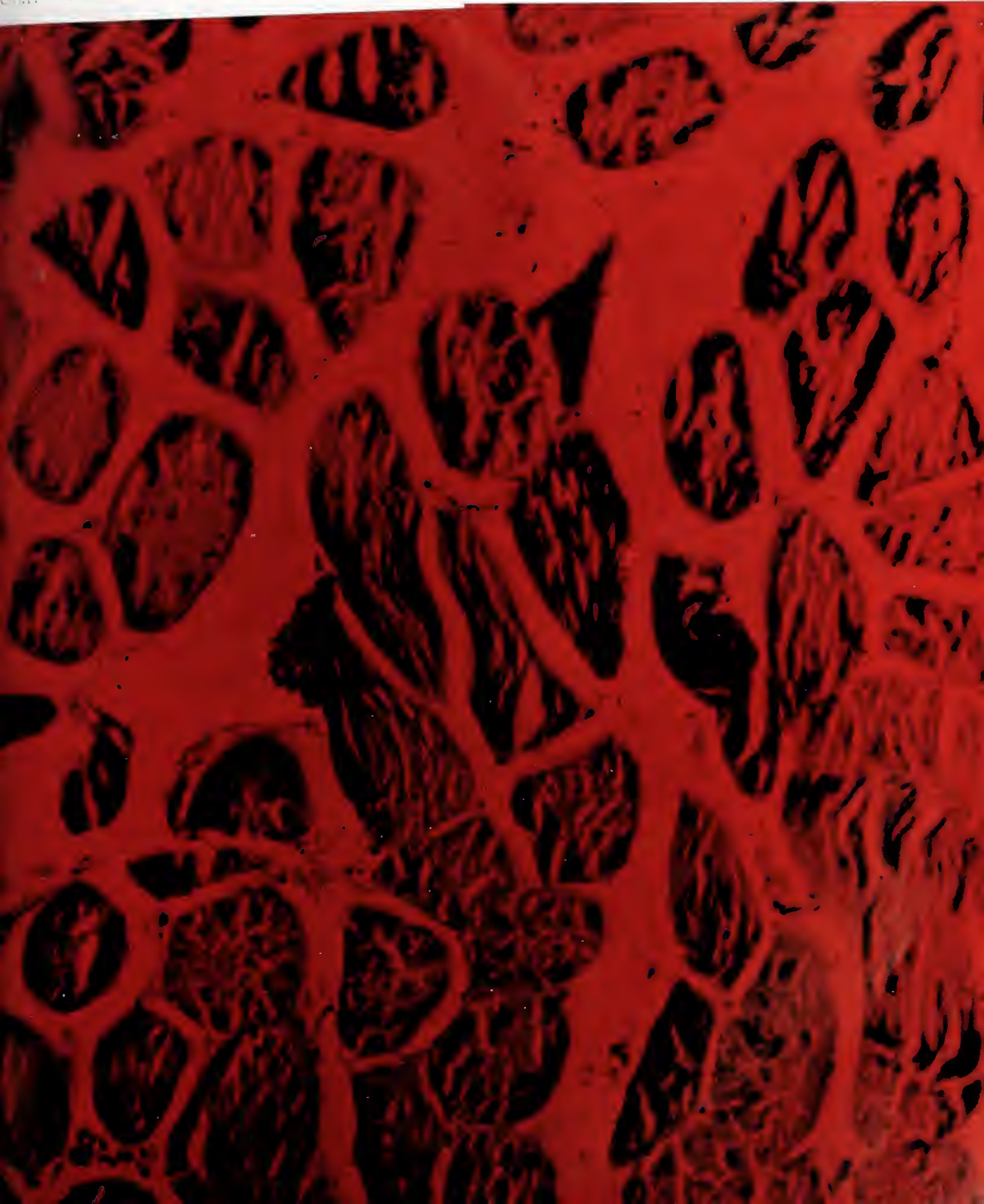
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# HAWAII MEDICAL JOURNAL

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**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use caution in any drug in pregnancy, lactation, or in women of childbearing age requiring that its potential benefits be weighed against its possible hazards.

**Precautions:** In the elderly and debilitated, and in children over six years of age, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, in combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions.

complaints. Brief counseling and the utilization of favorable factors in the patient's personality and environment can often provide needed support.

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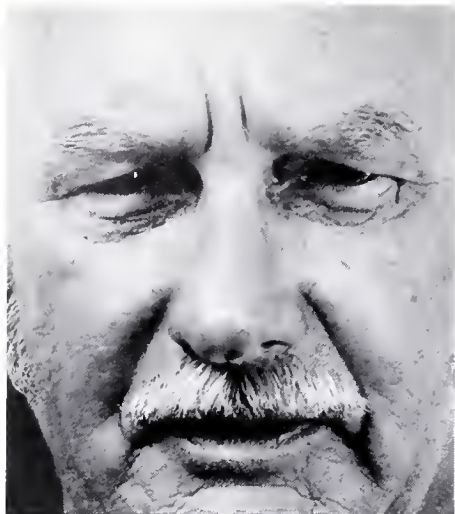
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presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

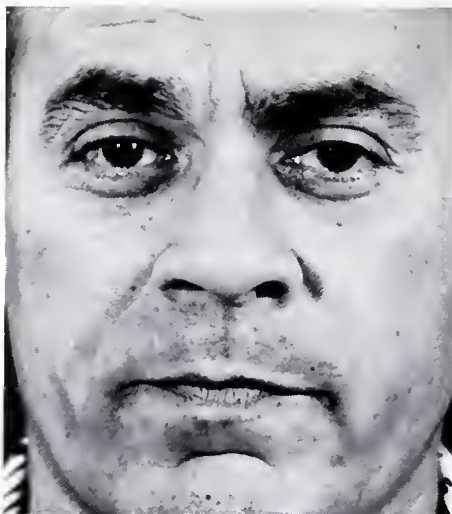
**Adverse Reactions:** Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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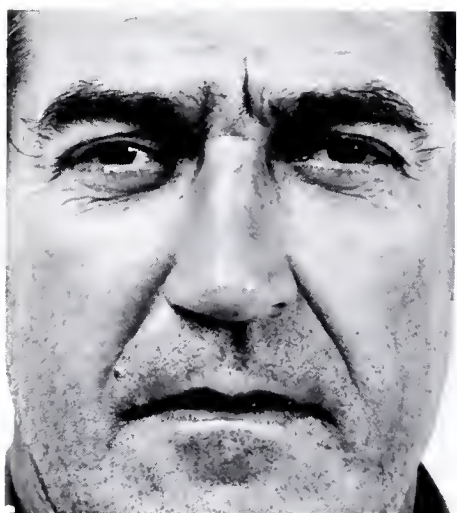
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Cover: Cross section of rat muscle showing muscle bundles on end. See Figure 5, page 67.



# **It's time for action to defend the laws and regulations that protect your patients against drug substitution.**

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Association

## Joint Statement on Antisubstitution Laws and Regulations

The purpose of this statement is to affirm the support of the participating organizations for the laws, regulations and professional traditions which prohibit the unauthorized substitution of drug products.

Traditionally, physicians, dentists and pharmacists have worked cooperatively to serve the best interests of patients. Productive cooperation has been achieved through mutual respect as well as a common concern for the ideals of public service. This mutual respect has been reflected, in part, by joint support over the years for the adoption and enforcement of laws and regulations specifically prohibiting unauthorized substitution and encouraging joint discussion and selection of the source of supply of drug products. The basic principles of medical, dental and pharmacy practice are thus utilized and preserved in the interest of patient welfare.

The antisubstitution laws have not obstructed enhancement of the professional status of pharmacy any more than they have in and of themselves guaranteed absolute protection from unsafe drugs, or freed physicians, dentists and pharmacists from their responsibilities to patients. As a practical matter, however, such laws and regulations encourage inter-professional communications regarding drug product selection and assure each profession the opportunity to exercise fully its expertise in drug usage, to the advantage of patients.

Physicians and dentists should be urged to increase the frequency and regularity of their contacts with pharmacists in selection of quality drug products, recognizing that

economies to patients can be improved through such communication, taking into account the patients' needs. The pharmacist's knowledge of the chemical characteristics of drugs, their mode of action, toxic properties and other characteristics that assist in making drug selection decisions should be utilized to the fullest extent practicable by physicians and dentists in serving their patients.

Since drug product selection entails knowledge derived from clinical experience, the physician's and dentist's roles in product selection remain primary and do not permit delegation of decisions requiring medical and dental judgments. A broader role in therapy will evolve for pharmacists as improved understanding and cooperation among the professions continue to grow.

There has been no evidence that there are convincing reasons to modify or repeal existing laws and regulations prohibiting the unauthorized substitution of another drug product for the one specified by a prescriber. It is our belief that such laws and regulations merit the joint support of the medical, dental and pharmaceutical professions and the pharmaceutical industry.

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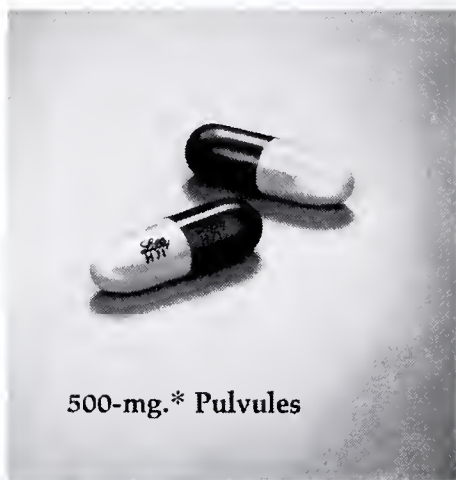
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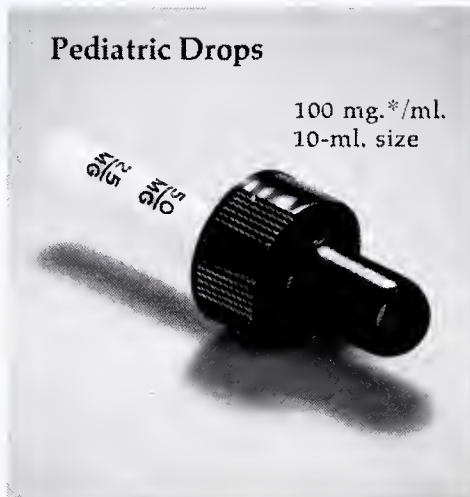
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## Dietary Counseling for Persons with Hyperlipoproteinemia

JEAN H. HANKIN,\* DR.P.H., and  
CHRISTIAN L. GULBRANDSEN,† M.D., Honolulu

• *Persons with hyperlipoproteinemia are prone to atherosclerosis and coronary heart disease. This risk may decrease if plasma lipids can be lowered, possibly by specific dietary or drug regimens. In most cases, the treatment emphasizes adherence to a specific prescribed diet, and patients require considerable assistance and motivation to insure that the diet will be followed.*

THE SPECIFIC treatment varies according to the type of hyperlipoproteinemia, classified by the amount and kind of low-density lipoproteins in fasting blood. The clinical and laboratory methods for diagnosis of five types of hyperlipoproteinemia and the dietary prescriptions for each type have been described by Fredrickson and Lees,<sup>1</sup> Fredrickson *et al*,<sup>2</sup> and Levy<sup>3</sup> (See Table 1).

We recommend that all patients restrict total calories until ideal or lean body weight is reached. Although the specific role of obesity in relation to cardiovascular disease has not been clarified, weight loss and maintenance usually result in reduction of serum lipids.<sup>4</sup>

### Five Abnormalities

Major differences among the dietary regimens relate to the particular lipoprotein abnormality of each of the five types. Persons with Type I cannot clear chylomicrons from the blood and have markedly elevated triglyceride levels derived from the fat in food. The 25- to 35-gram diet, which is less than half of the usual American pattern, results in a dramatic fall of the triglyceride level.

Type II patients have elevated beta-lipoproteins which are rich in cholesterol. By raising the ratio

of polyunsaturated to saturated fat (P/S) from the usual 0.3 to 2.0 or higher, and limiting dietary cholesterol within a range of 200 to 300 mg, most persons can lower serum cholesterol levels.

Type IV is the most common disorder. These persons often have abnormal glucose tolerance, as well as elevated levels of pre-beta-lipoproteins derived from the endogenous triglycerides. Restriction of carbohydrates and alcohol improves glucose tolerance and decreases triglyceride levels.

Types III and V, both relatively uncommon, have been treated successfully with the diets specified in Table 1.

### Dietary Treatment

These dietary treatments are the regimens used and recommended by the National Heart and Lung Institute (NHLI). Although some clinicians may advocate further reductions in dietary cholesterol and greater modifications in P/S ratios, the NHLI diets are practical for most persons in the United States. Details concerning the NHLI dietary plans are included in the booklet, *The Dietary Management of Hyperlipoproteinemia*,<sup>5</sup> designed for physicians prescribing fat-controlled diets. The diet plan, menu guide, and pertinent suggestions for each type of hyperlipoproteinemia also have been published separately for use with individual patients.‡ Like other therapeutic diets, further adaptations may be needed for particular ethnic groups or patients with special needs.

Dietary instruction for these patients generally requires individual consultation. There are four major sequential steps: (1) learning the patient's current food habits; (2) teaching the prescribed diet; (3) ascertaining the patient's understanding of the diet; and (4) evaluating the effectiveness of the treatment.

From the Schools of Public Health and Medicine, University of Hawaii, Honolulu.

\* Associate Professor of Public Health.

† Assistant Professor of Medicine.

Accepted for publication April 15, 1973.

‡ Publications are available from National Heart and Lung Institute, National Institutes of Health, Bethesda, Md.



TABLE 1.—Selected features and treatments of five types of primary hyperlipoproteinemia.\*

FEATURES	TYPE I	TYPE II	TYPE III	TYPE IV	TYPE V
Incidence	Very rare	Common	Relatively uncommon	Common	Uncommon
Lipoprotein abnormalities	Chylomicrons	$\beta$ -lipoproteins	Abnormal $\beta$ -lipoprotein forms	Pre- $\beta$ -lipoproteins	Chylomicrons and pre- $\beta$ -lipoproteins
Cholesterol	Normal or elevated	Elevated	Elevated	Normal or elevated	Elevated or normal
Triglyceride	Markedly elevated	Normal or slightly elevated	Usually elevated	Elevated	Elevated to markedly elevated
Dietary treatment	Weight control Low fat—25-35 g.	Weight control P/S ratio—2.0 Low cholesterol—200-300 mg.	Weight control Balanced in fat and carbohydrate, 40% calories each Low cholesterol—< 300 mg.	Weight control Low carbohydrate—40% calories Alcohol restriction Modified cholesterol—300-500 mg.	Weight control High protein—20% calories Low fat—30% calories Low carbohydrate—50% calories Modified cholesterol—300-500 mg.

\* Adapted from Levy, R. I.: Classification and etiology of hyperlipoproteinemias, Fed. Proceed. 30:829-834, 1971.

**STEP 1.** A dietary history should be obtained, just as the physician obtains a medical history before prescribing treatment. This might begin with a 24-hour recall of the previous day's meals and snacks. The quantities eaten should be estimated, especially for meats, entrees, and other items that will be restricted in the new diet. Because the size of meat portions is difficult to judge by recall, visual aids depicting different size portions may be helpful.

We developed a method for obtaining quantitative data by recall that has proved satisfactory. Representative persons from the study population were asked to apportion small, medium, and large servings of various foods. The samples were weighed, average weights calculated, and average size portions photographed in color. During interviews, if a person indicated he ate steak (or other items), he was asked to choose the amount from the pictures. (See Figure 1.)

The dietary history also should include additional data on the kinds of fats and oils used in food preparation and at the table, place and time of various meals and snacks, and usual variations in daily eating patterns, eg, differences between week days and week-ends. With this information, the dietitian or nutritionist will gain insight concerning effects of sociocultural, economic, and educational factors on eating patterns.

**Wife Needs Instruction**

If the patient is a man, it would be desirable to include his wife or whoever does the cooking in the initial interview and diet instruction session. Both husband and wife need to understand the

FIG. 1.—Small (2 oz), medium (3 oz), and large (4 oz) servings of steak.



principles and methods of diet adherence, as care is required in the selection of foods at the grocery store, preparation in the kitchen, and choice of kinds and amounts of items eaten at home or restaurants.

STEP 2. The dietary history should be used in the diet instruction. Necessary changes from the usual eating pattern can be related to the 24-hour recall, with appropriate suggestions on food substitutions, altered preparation methods, and restaurant meals.

Meat items require particular attention. Their selection, preparation, and portion size are all important. Many people are not aware that the prime and choice grades of meat contain more fat than the good or standard grades; that meats with marbled fat should be avoided; and that hamburger contains more fat than lean, fat-trimmed round steak or stewing beef. Even lean meat, purchased and ground at the market, will probably be higher in fat than the same meat ground at home because fat from the previous grinding may be left in the grinder at the store. The need for removing all visible fat before cooking and the use of broiling or baking on trivets rather than frying should be emphasized. It also would be helpful to have either samples, food models, or life-size photographs of various three-ounce portions, along with the respective raw meat equivalents, to show the patient.

In the case of poultry, the fat between the flesh and skin should be removed before cooking, and the skin should not be eaten. If a minimal cholesterol intake has been prescribed, as in diets for Types II and III, the patient should be cautioned to avoid shellfish and organ meats. All patients will need to eliminate ready-prepared frozen and canned meat entrees or dinners which usually are not designed to be low in saturated fat or cholesterol. Substitutions also will be needed for luncheon meats, sausages, and most cheese items. Further explanations concerning the limitations in use of eggs and dairy products will be necessary.

Selecting Fats

Most persons need considerable help in selecting dietary fats. The names of the acceptable polyunsaturated oils (safflower, soybean, corn, and cottonseed) for use in place of shortenings, lard, or butter should be learned. Products such as salad dressing or canned fish, often list "vegetable oil" on the labels. Unless the particular oil is listed by name, such items should be avoided. The vegetable oil could be the highly saturated coconut oil, which has no place in any fat-controlled diet. To emphasize the importance of reading the listed ingredients before purchasing any product, the diet counselor might use com-

mercial labels as a teaching aid.

Information regarding the brand names of acceptable local salad oils and margarines should be given to patients. Generally, the soft margarines packaged in small tubs are preferable to those in sticks because of their usually higher contents of polyunsaturates. However, there is a wide range of P/S values among the soft margarines.<sup>6</sup> A P/S ratio of 2.0 or greater is a useful guide for selecting desirable brands. Until labeling of quantities of saturated and polyunsaturated fats becomes widespread, the patient should be informed of desirable products for use. Most manufacturers will provide laboratory data of their products upon request. In Table 2 is compiled information concerning the total, saturated, and polyunsaturated contents and the P/S ratios of selected margarines.

TABLE 2.—Fat contents and P/S ratios of selected margarines.\*

GRAMS PER 100 GM MARGARINE				
BRAND	TOTAL FAT	POLY- UNSAT- URATED FAT	SAT- URATED FAT	P/S RATIO
<i>Stick or cube:</i>				
1. Nucoa	80.0	25.0	17.3	1.4
2. Mazola	80.3	29.4	15.7	1.9
3. Saffola	80.0	34.7	12.2	2.9
4. Fleischmann's	80.0	25.0	15.0	1.7
5. Allsweet	80.0	29.0	21.0	1.4
6. Imperial	80.0	26.0	23.0	1.1
7. Parkay	80.0	15.0	15.0	1.0
8. Parkay corn oil	80.0	22.5	15.0	1.5
<i>Soft:</i>				
1. Nucoa	80.0	33.2	15.5	2.1
2. Mazola	80.2	33.1	13.0	2.5
3. Saffola	80.0	46.4	10.8	4.3
4. Chiffon	80.2	33.5	12.3	2.7
5. Fleischmann's	80.0	35.0	15.0	2.3
6. Allsweet	80.0	30.0	21.0	1.4
7. Imperial	80.0	30.0	21.0	1.4
8. Parkay	80.0	23.5	14.5	1.6
9. Parkay corn oil	80.0	35.0	14.0	2.5
10. Parkay safflower oil	80.0	45.0	10.5	4.3
11. Whipt Parkay	80.0	23.5	14.5	1.6

\* The authors acknowledge and appreciate data provided by the following manufacturers: (1) Anderson Clayton Foods, (2) Corn Products Co., (3) Kraft Foods, (4) Lever Bros. Co., (5) PVO International Inc., (6) Standard Brands Inc., and (7) Swift & Co.

Exchange Lists

If calories or carbohydrates are restricted, the modified diabetic exchange lists included in the NHLI booklets are particularly suitable for dietary instruction and implementation.

In the United States, restaurant meals, coffee breaks, and evening snacks are common practices. Men, in particular, need help in these situations. The following items would be suitable for most of the fat-controlled diets:

- 1. *Appetizers:* fruit cup, clear low-fat soups as bouillon or consomme, tomato or fruit juices.



2. *Entrees*: turkey or broiled fish, chicken, and occasionally meats trimmed of visible fat and without extra fat or gravy.
3. *Vegetables and fruits*: except for avocados and olives, raw or cooked without added fat. Salad dressings, such as Italian, French, or vinegar with acceptable oils, may be used.
4. *Breads and crackers*: saltines, plain bread and rolls including French or Italian breads, and hard rolls. Biscuits, cornbread, muffins, pancakes, doughnuts, and other crackers should be avoided. Jams, jellies, and permitted margarines may be used.
5. *Sandwiches*: lean turkey, chicken, trimmed beef and veal, moistened with a small amount of mayonnaise. Luncheon meats and cheeses are not permitted. Unless the bread is spread with one of the allowed margarines, the patient should request "no butter."
6. *Desserts*: fruits, gelatins, angelfood cake, and fruit ices.
7. *Beverages*: coffee or tea with skim milk, skim or buttermilk, soft drinks, and juices.

The quantities of these items and of sugar, alcohol, and starches such as cereals, rice, and spaghetti, depend on the restriction of carbohydrates and calories in the diet prescription.

### Diet for the Family

Since these diet plans meet the NRC Recommended Dietary Allowances (7), there is no reason why they can't be used for the entire family with a few modifications for children, adolescents, and pregnant and lactating women. If the whole family follows the same general menus, the probability of successful adherence will likely be greater than if one person requires completely different foods. Further, if the disease is familial, the modified diet may serve a preventive purpose for other family members.

STEP 3. Because the fat-controlled diet may be the major, often the only, component in the

treatment of hyperlipoproteinemia, it is particularly important that the patient have a clear understanding of the diet instructions. This can be tested by asking him to record his food intake during the next week and arranging a second conference to review his record. The patient also should be encouraged to telephone the dietitian or nutritionist with questions or problems at any time. It is reasonable to assume that most people without a background in clinical medicine or dietetics may not be able to learn the various details of a fat-controlled diet in one or two hours. The average patient needs continual repetition and reinforcement of new facts at periodic conferences to develop competency in implementing the prescribed diet.

STEP 4. The effectiveness of the dietary treatment should be evaluated periodically. Follow-up visits should be scheduled to check weight loss and maintenance and to analyze serum lipids. If there are deviations from the normal ranges of either weight or cholesterol and triglyceride levels, dietary interviews should be conducted to learn whether the basic principles of the diet plan are thoroughly understood.

### Summary

The effectiveness of fat-controlled diets depends on the correct diagnosis of the type of hyperlipoproteinemia, the correct diet prescription, and the patient's adherence to the dietary plan. If successful, the probability of preventing atherosclerosis and coronary heart disease may be increased, and the patient's future health status may have a more favorable prognosis.

### Acknowledgments

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## Medline Comes to Hawaii

WALTER W. WALKER\* and MRS. FRANCES GRANIER,† *Honolulu*

The Hawaii Medical Library has traditionally offered the physician vital medical information in the form of books, journals, factual data, and other reference services. Keeping up with today's growing medical literature is increasingly difficult for Hawaii's busy physicians. Now, the Hawaii Medical Library has acquired MEDLINE, a powerful new tool that provides fast, accurate, and relevant biomedical information for health care and educational purposes.

On October 29, 1971, the National Library of Medicine instituted MEDLINE, a nationwide, computerized, rapid-access information service for the benefit of the U.S. and the worldwide medical community.<sup>1</sup> MEDLINE contains 500,000 citations to articles from approximately 1,000 of the most significant, predominantly English language journals indexed in *Index Medicus* for the past three years.

MEDLINE can quickly locate information by author, subject, age group, language, geographic area, and ethnic group. For example, a physician wanting English language information on anti-coagulants used in postoperative care and treatment of thromboembolic diseases in children only, should call the Hawaii Medical Library at 536-9302 and ask for Mrs. Frances Granier, a trained search analyst. Following a discussion of the physician's request with her, Fran will use a special vocabulary (Medical Subject Headings) to formulate his question into language the computer will accept.

The next morning Fran will use a typewriter-like device (computer terminal) to feed the MEDLINE computer a series of questions. (Figure 1). The computer informs Fran that 21 citations are available on the physician's topic. She next instructs the computer to print out the titles.

FIG. 1.—Mrs. Frances Granier at the MEDLINE Terminal.



Fran then calls the physician to say that his search is ready and will cost \$3.00. When the doctor stops by the Hawaii Medical Library, Fran will discuss the results of the search with him and ask him which articles he would like to read. These she obtains for him immediately within the Hawaii Medical Library (the physician may wish to read the bound journal volume or have the article photocopied at 10¢ per page), or from another local medical library via daily library messenger service, or from the UCLA Biomedical Library in photocopy form within 5-7 days.

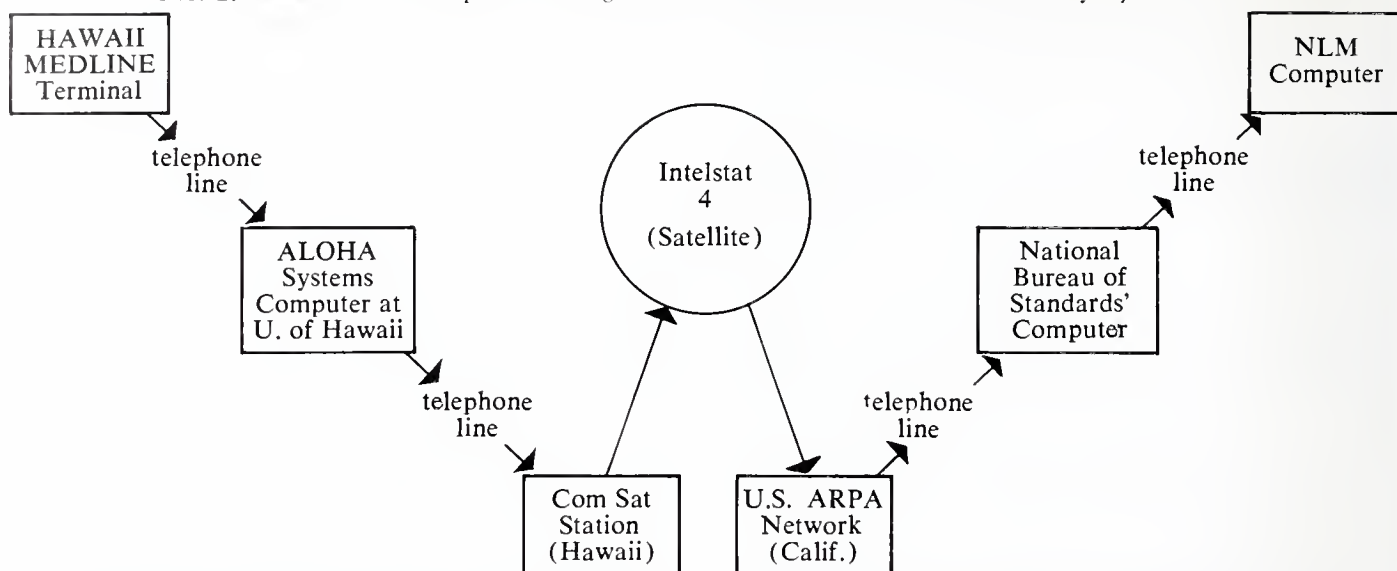
MEDLINE is also excellent for broad search requests; *eg*, a hospital resident interested in everything on anticoagulants and thromboembolism. Fran will follow the same procedure previously described, except that she will retrieve 131 citations in this bibliography, 35 immediately from the computer terminal, and the remaining 96 approximately 3 days later from Bethesda, Maryland. The first 35 citations will cost the resident \$3.00 and the remaining 96 citations will cost approximately 90¢ (10¢ per page).

\* Librarian, Hawaii Medical Library.

† Library Technician, Hawaii Medical Library.  
Received for publication January, 1974.



FIG. 2.—MEDLINE Computer Linkage From Hawaii to the National Library of Medicine.



The physician wishing to keep this MEDLINE bibliography current should use the SDILINE service. SDILINE contains all citations to the forthcoming printed edition of the monthly *Index Medicus* and is available two months ahead of the printed edition. SDILINE costs \$1.00 per month.

When MEDLINE service was first announced, Hawaii was not scheduled to receive this service. Beginning in early 1972, consultations took place between the Hawaii Medical Library, the U.S. Army (representing Tripler Army Medical Center Library), the University of Hawaii (Hamilton and Leahi) Library System, the National Library of Medicine, the National Bureau of Standards, and the UCLA Biomedical Library—with the purpose of finding an economically feasible communications link between Hawaii and the U.S. mainland. The result is a computer linkage, sponsored by the U.S. Army, that spans 6,000 miles through three computer systems and a communications satellite. (Figure 2). Under the terms of a consortium agreement between Tripler Army Medical Center Library, the Hawaii Medical Library, and the University of Hawaii Library System, all member libraries agree to provide MEDLINE service to all health professionals in Hawaii, the Trust Territory, and the Pacific Command.<sup>2</sup>

In June, 1973, the UCLA Biomedical Library sent Miss Angie Durso and Mr. Michael Holman to Honolulu, where they gave nine personnel from the participating libraries an intensive two-week training session in MEDLINE. MEDLINE service to Hawaii's health professionals was inaugurated in mid-July, 1973. As of October 31, 1973, the participating libraries had completed 260 searches for Hawaii patrons.<sup>3</sup>

Thanks to the close working relationship be-

tween the medical libraries in Hawaii and the UCLA Biomedical Library, all MEDLINE articles are available to Hawaii physicians and other health professionals. The Health Information Network of the Pacific (HINOP)\* provides daily messenger service among the medical libraries on Oahu and the University of Hawaii. In addition, HINOP has developed a Pacific Area Union List of Medical Serials, a Union Catalogue of Medical Books from 1970 to the present, and limited reference service for smaller hospitals in Hawaii.

### Conclusions

The National Library of Medicine has developed a nationwide, rapid-access information system as a general service to the U.S. and world-wide medical community. Thanks to a consortium of federal, state, and private organizations, MEDLINE service is now available to all Hawaii physicians, nurses, and allied health personnel. MEDLINE service, combined with a high level of cooperation between Hawaiian and mainland medical libraries, ensures fast, accurate, and relevant biomedical information for health practitioners. For further information, consult your local hospital librarian or MEDLINE service center:

1. Tripler Army Medical Center Library, call 868-391 or 868-917, Mrs. Peggy Place or Mrs. Esther Nekomoto.
2. University of Hawaii (Hamilton) Library, call 947-4325, Mrs. Betty Rognstad.
3. Hastings H. Walker Library at Leahi Hospital, call Mrs. Vi Furumoto at 734-0221.
4. Hawaii Medical Library, call 536-9302, Mrs. Frances Granier or Walter Walker.
5. Health Information Network of the Pacific (HINOP), call 536-9304, Clyde Winters.

\* HINOP is funded by the Regional Medical Program of Hawaii.

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2. Consortium agreement for MEDLINE service in Hawaii, the Trust Territory, and the Pacific Command (between the Tripler

- Army Medical Center, the University of Hawaii, and the Hawaii Medical Library, Inc.) 1 June, 1973.
3. *National Library of Medicine MEDLARS/Technical Bulletin*, September-December 1973 issues, showing MEDLINE statistics for Tripler Army Medical Center, the University of Hawaii, and the Hawaii Medical Library for July-October, 1973.

...in search for histological changes of circulatory deprivation

## Critical Evaluation of the Hematoxylin-Basic Fuchsin-Picric Acid Stain as an Indication of Early Muscle Ischemia

PAMELA ZEITLIN, EVA SEGOVIA, and  
J. JUDSON McNAMARA, M.D., *Honolulu*

● *Early myocardial ischemia is difficult to identify by morphological examination of tissue. Gross changes do not become apparent before 15-20 hours,<sup>1</sup> and commonly employed histologic stains fail to detect alterations of myocardial infarction earlier than 6-12 hours.<sup>1-3</sup> Several histologic stains allow identification of established ischemic changes during this time period, but often fail to show the earliest stages of myocardial ischemia.*

THE SUPERIORITY of histochemical and enzyme stains over established morphological methods for detecting early myocardial ischemia has been documented.<sup>3</sup> Lie *et al*<sup>1</sup> have proposed a technique for the detection of early myocardial ischemia which utilizes formalin-fixed, paraffin-embedded tissue. Hematoxylin-basic fuchsin-picric acid stain (HBFP) has been suggested as a selective stain to identify regions suspected of ischemia which often appear normal in hematoxylin and eosin (H and E) stained sections.

It is the intention of this study to examine the HBFP stain reaction in experimentally produced ischemic muscle tissue in rats and to standardize the results within the limits of the reproducibility of the stain. Its possible significance as a potential routine histologic diagnostic means of identifying early myocardial ischemia presents a need for the critical appraisal of its validity.

### Materials and Methods

Ten albino Sprague-Dawley rats, 500-600 gms in weight, were utilized in this study. One rat served as the control, and sections from the quadriceps femoris muscle were removed from the right and left hind legs.

Periods of ischemia were induced in one hind leg for 30 minutes and in the other for one hour

in two rats. Prolonged periods of ischemia lasting three hours were induced in the hind legs of two more rats, and normal sections were obtained from the opposite leg following removal of the ischemic tissue. The same procedure was followed in two rats with the ischemic period lasting six hours and in a third rat for 12 hours. Revascularization was attempted with the ninth and tenth rats. Following ligations of 30 minutes and three hours, the ligatures were released for one hour. All rats were sacrificed with chloroform following the experiment.

Anesthesia was initially accomplished by three intra-peritoneal injections of sodium pentothal (Abbott Laboratories) 30 mg/kg, 15 minutes apart and followed by intermittent administration of ether (E.R. Squibb and Sons) as necessary during the ligation.

The circulation to the hind leg was interrupted with a modified pressure cuff constructed from silastic plastic sheeting and tubing (Fig. 1). The plastic cuff was folded in half, taped around the leg securely and inflated with a mercury manometer. The pressure was kept constant at 300 mm Hg throughout the duration of the experiment.

FIG. 1.—Pressure cuff on rat leg demonstrating preparation for producing limb ischemia.



From the Department of Surgery, Queen's Medical Center and the University of Hawaii School of Medicine, Honolulu, Hawaii. Received for publication January, 1973.



Following the procedure a section of the quadriceps femoris below the pressure cuff was removed and placed in warm saline (37° C.) for 30 minutes. The section was then fixed in 10% formalin.

### HBFP Stain

The formalin-fixed tissue was embedded in paraffin and cut at a thickness of 5-6 microns. Deparaffinization was accomplished with xylene and successive dilutions of ethyl alcohol to 75%. Following hydration to water the slides were stained in filtered alum hematoxylin (Allied Chem.) for ten seconds and washed in running cold tap water for five minutes. The slides were then stained in a 0.1% solution of basic fuchsin (Allied Chem.) in distilled water for three minutes, rinsed in distilled water for ten seconds and in absolute acetone for ten seconds. The slides were differentiated in a 0.1% solution of picric acid (J.T. Baker Co.) in absolute acetone until the basic fuchsin color ceased to run off the tissue (usually about 20-25 seconds, varying with the thickness of the section). The sections were quickly rinsed in absolute acetone for several seconds, placed in xylene, mounted with balsam and examined.

Companion slides were stained in hematoxylin and eosin as a control.

### Results

The hematoxylin-basic fuchsin-picric acid stain proved to be a difficult technique to standardize in rat skeletal muscle, unreliable and unsuited for routine histologic procedure.

The alum hematoxylin adequately stained nuclei during the ten seconds incubation period and the basic fuchsin was readily retained by muscle fibers. The inconsistency in staining technique appeared with differentiation in picric acid. The criteria for determining the length of time the tissue section should be agitated in picric acid-acetone included a combination of the identification of the endpoint when the fuchsin color ceased to run off the tissue and the examination of the slide to insure the internal elastic membrane and elastic fibers were adequately stained by the basic fuchsin. Although an average endpoint of 20 seconds was established for normal tissue, it was found that the time varied as much as 35 seconds for a few 6 micron sections and 15 seconds in some 5 micron sections. Permitting the tissue to remain in the picric acid-acetone for more than 45 seconds resulted in total decolorization of the fuchsin stain.

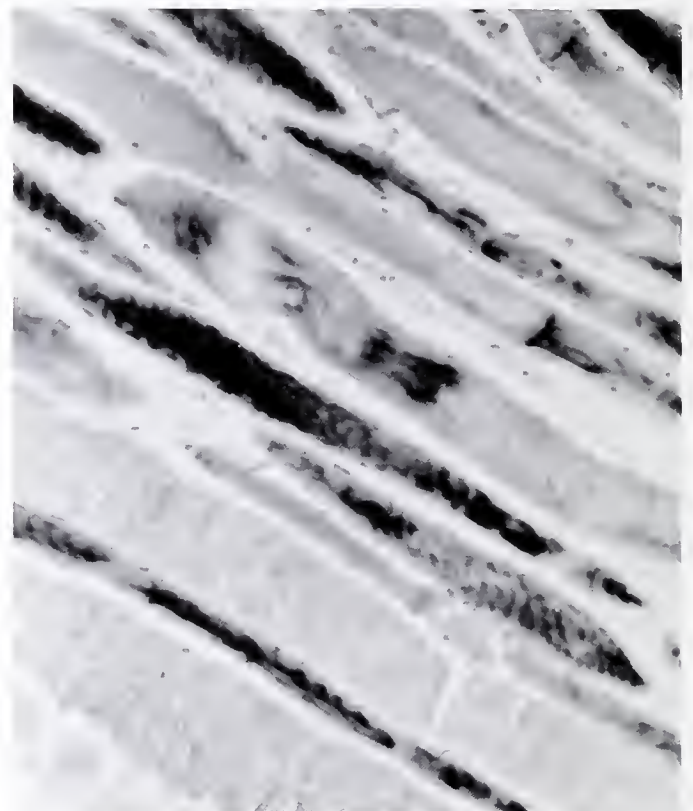
Once a slide had been differentiated until its endpoint, it was imperative that it be quickly rinsed in absolute acetone for several seconds and then rapidly transferred to xylene. It appeared

that the acetone rinsing continued to decolorize the fuchsin; hence, the time it remained in the solution had to be kept at a minimum.

Whereas the picric acid appeared to be a good cytoplasmic stain and an indicator as to whether the slide had ample time to differentiate, fuchsin staining was erratic patchy, often retained by normal muscle and easily washed out by over-decolorization.

Patchy fuchsin staining of muscle bundles was seen in both normal and ischemic tissue. Ischemic tissue, however, frequently demonstrated diffuse fuchsin staining of muscle bundles not seen in normal tissues. The presence of this diffuse staining quality was thus reasonably indicative of tissue ischemia. However, not all ischemic tissue stained in this fashion (Fig. 2-5).

FIG. 2.—Normal skeletal muscle from a rat stained with HBFP. Individual muscle bundles are visualized in longitudinal section. Red stain fuchsin positive areas in individual muscle bundles appear black in this black and white reproduction x 250.



Evaluation of the depth and degree of fuchsin staining showed no correlation with the duration of ischemia. Furthermore, ligature release and restoration of blood flow after varying periods of ischemia did not affect the distribution of fuchsin staining material in the sections.

### Discussion

Dissatisfaction with the HBFP technique arises over the inconsistent staining exhibited in normal muscle tissue. Within single tissue sections areas alternately destain completely or retain the fuchsin dye. The validity of the technique is questioned in this respect, as the determination of the extent



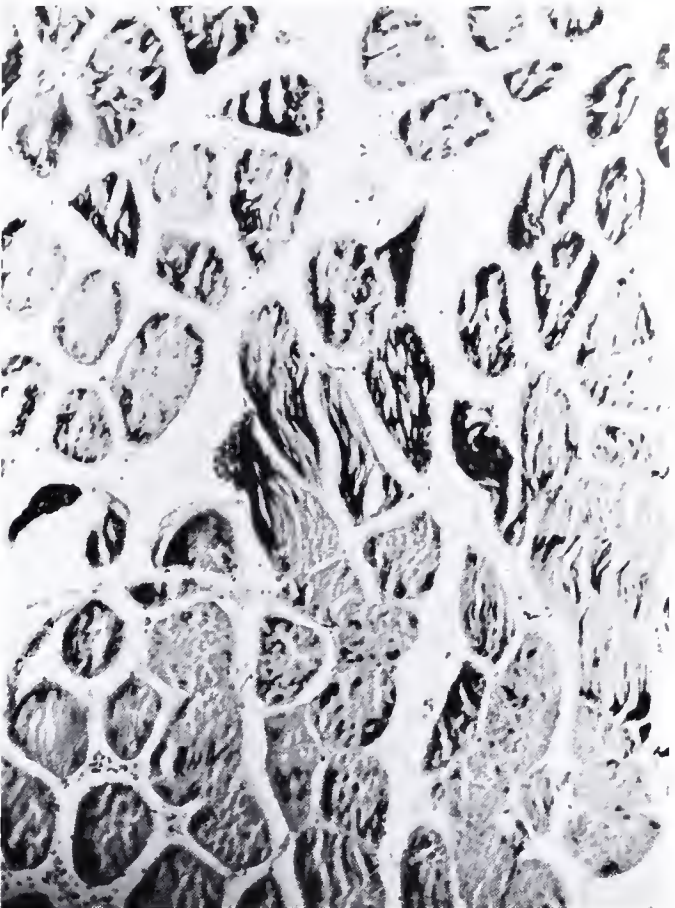
FIG. 3.—Normal skeletal muscle from rat not subjected to extremity ischemia. No fuchsin positive material is noted here x 125.



FIG. 4.—Skeletal muscle of rat follow one hour of extremity ischemia shows areas of strongly fuchsin positive material x 500.



FIG. 5.—Cross section of rat muscle showing muscle bundles on end. This muscle, subjected to six hours of ischemia, shows generalized staining with fuchsin x 125.



of ischemic myocardium rests on the ability of the stain to differentiate between normal and abnormal tissue.

Common artifacts in microscopic sections of muscle that showed up in the form of altered staining reaction, fragmentation and transverse fractioning<sup>4</sup> do not explain the irregular fuchsin staining. Darker staining caused by pressure ridges because of tissue brittleness after fixation is absent in the H and E stained sections and, therefore, is not responsible for the inconsistent retention of the basic fuchsin.

The relatively long time required for cytologic changes (6-12 hours) to show up during myocardial infarction has sparked the search for sensitive indicators of early myocardial ischemia. Strong evidence of ischemic abnormalities has been reported in H and E stained sections at six hours,<sup>1, 3</sup> and although changes have been determined as early as one-half hour following ligation of the left coronary artery<sup>3</sup> and one to two hours following onset of ischemia,<sup>5</sup> the areas were poorly demarcated. Hyperemia of capillaries, slight interstitial edema and margination of small numbers of neutrophils in congested vessels are preliminary signs of ischemia. Partial loss of cross striations of the myofibrils and fragmentation appeared rarely as early as six hours.

The loss of stainable glycogen has been in-



vestigated as an indicator of myocardial ischemia. Patchy absence of myocardial glycogen is present at one hour and at four to six hours large glycogen-free areas can be noted.<sup>5</sup> However, uncontrolled losses of glycogen from normal areas due to ventricular fibrillation and postmortem autolysis render this technique uncertain.

A method for demonstrating myocardial infarcts in gross specimens has been described utilizing a general dehydrogenase reaction,<sup>6</sup> yet the earliest indication of ischemia was only two hours after arterial occlusion. A succinic dehydrogenase enzymatic assay has been used successfully in infarcts of 6-24 hours; however, this is insufficient as a method for early detection.

The possibility of surgical relief of ischemia in acute myocardial infarction is dependent upon the determination of reversible myocardial damage. Irreversible cellular changes 20 minutes following acute coronary occlusion in the dog have been demonstrated<sup>7</sup> as well as damage due to secondary disturbances in the blood supply after the release of the temporary occlusion in the cat.<sup>8</sup> The HBFP stain has been suggested as an accurate identification of ischemic myocardium, and preliminary investigation of the technique after ligation of the left anterior descending (LAD) coronary artery in the monkey<sup>9</sup> has shown that it is useful in some instances as a general map of the area of ischemia (Fig. 6-7). The present study confirms the ability of the HBFP stain to detect early ischemia in some cases as evidenced by diffuse fuchsin staining. This is not consistent, however. Furthermore, in some cases normal tissue retains a patchy distribution of the basic fuchsin dye similar to that seen in some ischemic muscle. Any use of the HBFP technique should be coupled with other indicators of early myocardial ischemia to adequately analyze the extent of damage.

Whether ischemic myocardium can recover with revascularization is not known. Herdson *et al*<sup>10</sup> detected fine structural abnormalities in temporarily ischemic myocardium distinct from those seen after similar periods of permanent ischemia that included a disorderly arrangement of myofibrils and mitochondria and large dense contraction bands consisting of a condensation of several sarcomeres, as well as the absence of glycogen and separation of myofibers. Sommers and Jennings<sup>11</sup> noticed within 20 minutes of restored flow, a separation and stretching of myofibers, inflammatory cell infiltration, the appearance of prominent contraction bands, the loss of stainable glycogen and the development of diffuse amylase-fast PAS positive material. Both studies attributed differences in part to the presence of the arterial circulation and the attendant rapid electrolyte and metabolic exchanges.

FIG. 6.—Cross section of monkey heart following five hours of left anterior descending (LAD) coronary artery ischemia. The area of LAD blood supply is clearly outlined by fuchsin positive staining of ischemic myocardium  $\times 50$ .

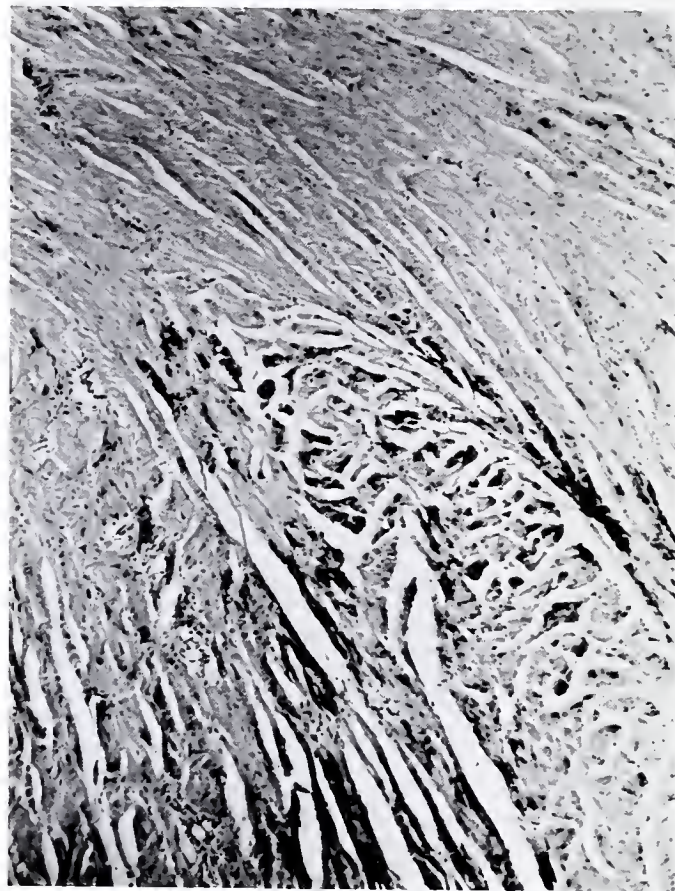
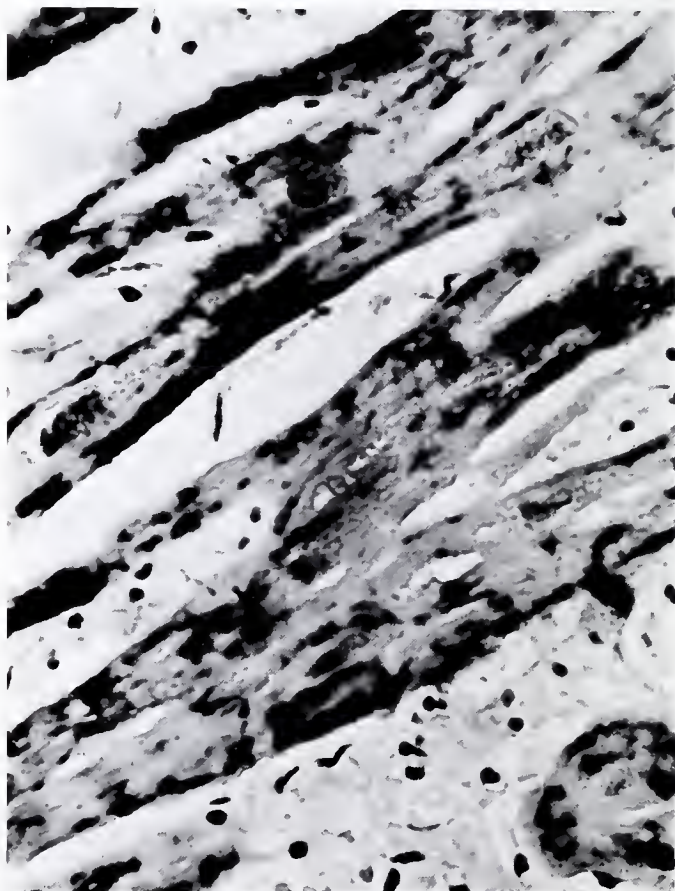


FIG. 7.—Higher power of ischemic region in Fig. 6 again shows fuchsin staining to the margins of the infarct  $\times 500$ .





Two hours is the generally established time a tourniquet may be left on an extremity with safety during surgical procedures. Paletta *et al*<sup>12</sup> applied 600 mm Hg pressure to the limbs of dogs for five hours without therapy and noticed massive swelling of the thigh and edema which did not resolve itself earlier than one week. Significantly, revascularization of muscle tissue in the rat in this study produced no apparent change in tissue retention of basic fuchsin.

### Summary

The ability of the hematoxylin-basic fuchsin-picric acid stain to selectively identify regions of skeletal ischemia was evaluated in experimentally produced ischemic muscle tissue in rats. Ischemic areas stained strongly positive for ischemia in most instances; however, normal tissue often retained a

patchy distribution of the fuchsin dye, the indicator of affected areas. The technique was judged unsuitable as a routine histologic procedure, and it was recommended that its use should not be relied upon as a sole determinant of myocardial ischemia due to its apparent inconsistency.

No correlation between the intensity of the fuchsin staining and the length of the ischemic period could be drawn. Temporarily ischemic muscle tissue followed by one hour of revascularization produced no reduction in tissue response to HBFP stain.

### Acknowledgment

We gratefully acknowledge the assistance of Miss Laura Arakaki, Queen's Medical Center, Dr. Takuji Hayashi, Kuakini Hospital and the Hawaii Heart Association.

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# A MAN NEEDS TO THINK ABOUT TOMORROW. BUT HE SHOULDN'T FORGET ALL THE GOOD THINGS ABOUT TODAY.

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## PSRO: Tyranny in the Making

Medicine is not a science. Politics is not a science. Politics basically is the art of pornography, cynicism, and hypocrisy carried to its logical conclusion of tyranny. Medicine is the practice of using artfully the products of science to benefit a sick individual. It should make no pretensions to the advancement of humanity.

It should therefore be obvious that medicine and politics are basically immiscible; however, too many of our well-meaning medical colleagues cannot accept this verdict and persist in the attempt to reconcile the two. If anything should make the point obvious that politics is inimical to medicine and patient welfare alike, it is PSRO.

In PSRO, as with so much legislation, the politicians have abdicated or delegated their duties and powers to an uncontrollable bureaucracy to determine just what they meant by the law which they passed. Rules and regulations with the power of law will be promulgated by government employees whose desire is to curtail the freedom of one of the few remaining partially intransigent groups (physicians) left in the nation. These employees are bent on the increase of state power, and on the further subjugation of all Americans.

If you feel the preceding is pure hyperbole, I ask you to investigate the income tax amendment, number 16, from its inception to the present, with IRS's expansion, by fiat, of its powers under this law. Other examples are FTC and O.S.M.A. For more direct local examples, I cite the agency enforcing gasoline rationing during the past few weeks.

As it stands, the PSRO is to set up "norms" of care, these norms, supposedly, to be determined by physicians. Well, a sick individual by definition is in an abnormal condition (maybe the PSRO should set up abnorms). Despite all of the statist's attempts to dehumanize the individual, it still requires the judgment of a physician on the spot to evaluate what is and what is not required for that particular patient's welfare. No committee yet got a low-back-pain patient out of bed and back to work. Anything less efficient than a committee I have yet to see. And the PSRO will be a series of government committees, with the physician low man on the totem pole and a clerk his superior.

PSRO is the law which subjugates physicians to become lackeys of the government. Anything

in the future, such as national health insurance, is only icing on the cake. Anyone doubting this statement should read the law thoroughly. The law states that he, the physician will abide by HEW guidelines (which have precedence over your *local* PSRO buddy). Any time a PSRO inspector wishes to see your records, you must comply.

At the moment this supposedly applies to Medicaid and Medicare patients only. However, the law permits PSRO flunkies to survey all of your files without court order or search warrant, etc. to check your norms, or abnorms as the case may be, for the government's use. There is absolutely no proof that any of the above will add to patient welfare or reduce costs, and it violates patient confidence as well. It is socialized medicine, and there is ample evidence in the countries where it is practiced that socialized medicine is not only of inferior quality, but often more expensive than ours. So why are we substituting bad for good?

Why? Because politicians having nothing else to offer, and needing a scapegoat for their miscalculations, foist this poison upon our unsophisticated and trusting public. The HMA House of Delegates voted, tacitly, to go along with PSRO. At the time, only one or two cassetras (the same one or two as always) warned of the peril and error. Now that more gleanings from Washington are available, it might be wise for the House to reconsider its position while there is time. It is a bad and evil law and should be fought by every thinking physician who has the welfare of his patient and country at heart.

If you wonder why I say this, consider: the above is pure socialism (I must confess I am a libertarian anarchist). Socialism in practice has no use for the individual at all. Socialism leads to nationalistic tyranny in which the state is God, the individual irrelevant, and his life expendable. The physician is dedicated to the well-being and sanctity of the individual and preservation of life. Therefore, there can be no accommodation of the two viewpoints and the physician must, for the welfare of his patient, fight all socialistic inroads.

Therefore, fight PSRO!

THOMAS P. FRISSELL, M.D.  
President, Hawaii Medical Association

# Book Reviews

WINFRED Y. LEE, M.D.

HAWAII  
MEDICAL  
JOURNAL

## Zinsser Microbiology, 15th Ed.

By Wolfgang K. Joklik, Dr. Phil., and David T. Smith, M.D., \$24.00, 1120 pp., Meredith Corporation, 1972.

EDITED BY DOCTORS' Joklik and Smith of Duke University, School of Medicine, Department of Microbiology. The editors state this "is a new textbook designed primarily for the medical student working within the framework of the modern core curriculum"; it should be judged by its utility to that audience.

By chance, I was asked to review this book while involved in teaching the microbiology course to our own U. of H. medical students. The instructors of this course aspire to acquaint the student with the organisms that cause disease, host-parasite relationships, principles of epidemiology, specimen collection, and an approach to the laboratory work-up of these specimens. The reader will from his own experience be sympathetic to the student asked to master this mountain.

Our department, has prepared a core set of notes to guide the student studying medical microbiology. Comprehension of the material requires the student to consult other sources. In past years he has had to have access to several texts which together cost over 60 dollars. For our purposes, the 15th editory Zinsser Microbiology presents another look at the stuff of microbiology as required by a preclinical medical student. Under one volume is presented bacteriology, virology, immunology and parasitology. The presentation is generally clear and concise and the book is relevant to the student with one eye on national boards, another on the utilization of his time and a third on his pocketbook. The price of about 24 dollars is a relative bargain for a book which will serve one year and then be shelved with other prominent, but little used preclinical texts; or perhaps more wisely sold to the next year's class and a text of clinical infectious diseases bought with the change.

STEVEN J. BERMAN, M.D.

## Communicable and Infectious Diseases, 7th Ed.

By Franklin H. Top, Sr., A.B., M.D., M.P.H., F.A.A.P., F.A.A.P., F.A.C.P., F.A.P.H.A., and Paul F. Wehrle, B.S., M.D., F.A.A.P., F.A.P.H.A., 803 pp., C.V. Mosby Co., 1972.

I WOULD NOT recommend that a student buy this seventh edition of *Communicable and Infectious Diseases* edited by Top and Wehrle. The emphasis of this textbook is not opportunistic infectious, nosocomial infections, host-parasite relationships, or any of the other common but fascinating problems of infectious diseases encountered in our offices or hospitals. In this book, where smallpox receives almost as much attention as bacterial pneumonias the emphasis is on communicable diseases, not host breakdown. Most of the authors have had extensive experience with the diseases about which they are writing and the clinical descriptions reflect these insights. The unique value of this book is as a source of clinical description from which the physician can gain a flavor of a disease with which he has little personal experience. I have used this text on multiple occasions and have found it helpful.

It belongs in every hospital library.

STEVEN J. BERMAN, M.D.

## Hyperparathyroidism

By Edward Paloyan, Ann M. Lawrence, and Francis H. Straus, 222 pp., \$16, Grune and Stratton, Inc., New York, 1973.

THIS VOLUME argues for an unmodified therapeutic approach to hyperparathyroidism—near-total parathyroidectomy as the corrective operation of choice. Justification for such surgery lies in the authors' belief that parathyroid hyperplasia may precede and give rise to parathyroid adenoma, coexist with adenoma formation in the same gland, exist in smaller glands along with the presence of an adenoma in a larger gland, and account for a recurrent rate of hyperparathyroidism as high as 30% after initial parathyroidectomy. Unfortunately, the evidence cited for the frequent occurrence of hyperplastic, multiglandular disease is histologic and fraught with the same difficulties whenever correlation between function and morphology are attempted in an endocrine tissue.

Only brief discussions are given to multiple endocrine adenomatosis type I (Wermer's syndrome) and type II (Sipple's syndrome), two genetic disorders in which knowledge of parathyroid hyperplasia has accumulated. The section on clinical signs and symptoms, calcium metabolism, diagnosis and management of hyperparathyroidism lacks depth and completeness; no mention is made of the authors' or others' experience with the clinical application of parathyroid hormone radioimmunoassay.

Because much of the discussion is speculative and consists of possible etiologic factors underlying the genesis of hyperparathyroidism, the book does succeed in asking, "What drives the parathyroids in hyperparathyroidism?"

TERRY WONG, M.D.

## Questions and Answers on Contact Lens Practice, 2 Ed.

By Jack Hartstein, M.D., 254 pp., \$12.75, C. V. Mosby Company, 1973.

IN THIS second edition of Dr. Hartstein's excellent book, he has adhered to the original "question and answer" format to present both fundamentals and current developments in the contact lens field.

Dr. Hartstein has called upon his extensive background as a teacher and lens fitter to provide the beginning lens practitioner with a clear, step-by-step procedure in the work-up and care of the contact lens patient. Those who enjoyed the first edition will find this book a rich, yet concise source of new information, especially as regards hydrophilic contact lenses.

The book is well illustrated, and is a mine of meaningful minutiae. While I find the question and answer format somewhat distracting, it lends itself well to the presentation of fundamentals, and certainly does prod the somnolent reader to pay attention and stay awake!

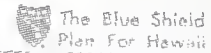
Dr. Hartstein's lectures at Washington University come alive in these pages, and the book is to be recommended to all who fit contact lenses or evaluate contact lens fittings by others.

JOHN M. CORBOY, M.D.



Physician's Report of Services Rendered

HAWAII MEDICAL SERVICE ASSOCIATION



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## Hawaii Medical Service Association

## PSRO Dialogue

*Foundation Meeting with Hospital  
UR Committees (Sept. 27, '73)*

Prexy Wini Lee reported: "Area designations will be announced by Jan. 1, '74 and 15-months later, a review evaluation will be conducted. . . . There is uncertainty about the PSRO, but *it is the law*. . . . **Dr. Bauer** of PSRO just resigned. . . . Apparently HEW was not providing enough financial aid. . . . The Association of Medical Clinics has also sent a letter of intent. . . . If 10% of our physicians disagree on the State PSRO designate, then we need a statewide vote. . . . We have stated that 15-months is insufficient time to get organized. . . ."

The Straub representative asked, "When are the guidelines forthcoming?"

No one had the answer, but **Henry Oyama** was reassuring: The guidelines must be statewide. . . . Hawaii has the Payne and EMCRO studies. . . . But these guidelines must be simplified. . . . We shouldn't have too much trouble initiating PSRO guidelines because of our experience. . . ."

A poll showed that Kuakini has a nurse coordinator; SFH a physician coordinator; Kaiser, a medical audit committee and a physician reviewer; Queen's, a nurse coordinator; Straub, a utilization review and "A surgeon and Internist of the Month"; Castle, an ongoing review; Wahiawa, a nurse on site review; Children's, a resident physician; and Kapiolani, a medical committee member using the 75% percentile.

**Ben Tom**, Queen's UR chairman explained the procedure at Queens: Maybe I can offer some isolated comments. . . . In the past 8 years, we learned that reviews were not timely. . . . We are sensitive to our colleagues and tend to look the other way. . . . So we adopted the team concept utilizing the knowledge of the head nurse and a review by an appropriate physician. We have daily reviews and the reviewing physician gets the entire picture by studying a daily computer printout sheet. . . . The sheet has the time of printout, the patient's name, number, and diagnosis, age, days in the hospital and whether or not he falls in the 50 or 75 percentile bracket. . . . This information is on all patients, non-Medicaid as well. . . . We pay the reviewer the same as for a hospital visit. . . . The tour of duty for a physician is one month on the floors and 2 weeks for CCU and ICU. . . . **Bob Worth** wondered, "When does the physician show battle fatigue?"

**Henry Oyama** reported that Kuakini uses 33 diagnoses based on criteria from the Payne and EMCRO studies. . . . **Ann Catts** wondered what more should be done to develop the criteria. . . . **Bob Worth** offered his solution: "We learned from the EMCRO studies that cost became prohibitive when we made changes. . . ." Wini pointed out that PSRO states that the review should be at the 50 percentile. . . . It is the law. . . . But it must be done from some objective base. . . . The evaluation will include preadmission review, the quality of care, the length of stay and the level of care. . . . **Bob Worth** proposed the following steps for preadmission review: From the admitting clerk, the information goes through the computer and it allows precertification for "X" number of days. . . . This can be based on EMCRO review data and also on admission criteria from California which has had 2-years of experience. . . . The problem is in psychosocial area since the needs are subjective. . . . Practically it can be stated as follows: 'We will admit your patient and he will be subject to review within 24 hours,' or 'Sorry, the information does not meet with admission criteria. . . . We will have Dr. so and so call you.' The cost will be 30 cents per admission with the minicomputer. . . ."

**Ann Catts** felt: We should establish criteria for the 10 most common diagnoses at each hospital. . . . The rest can be done subjectively as in the past. There is criteria available for 30 diagnoses from the EMCRO and Payne studies."

**Wini Lee** reiterated: "From now on, the 'Name of the Game' is documentation. . . . It is all up to the UR committees. . . . There will be no third party interference. . . . No DSS, HMSA interference. . . . The Physicians will make the rules and the judgments. . . . Some good can come out of all this. . . ."

*Foundation Meeting of Dec. 11*

**Wini Lee** had just returned from the AMA Anaheim Meetings and reported that the PSRO was the main concern of the attending physicians. . . . Historically, at the June 7, 1972 meeting in New York, the AMA had taken the position of implementing the PSRO with only Louisiana pushing for repeal. At the Anaheim Meeting, there were over 8 resolutions for repeal of the law. The Board of Trustees, however, observed that there was "no current viability to repeal of the PSRO. . . . **Dr. Edwards** and **Representative Crane** of Illinois were invited. Rep. Crane received a standing ovation when he said, 'Doctors . . . you should fight for the principle rather than give up at each turn. . . . One of the problems is that not all the legislators know what they passed. . . .'"

Wini also commented: "When a physician looks at this law, he cannot help feeling scared. . . . But looking at it another way, it is a good law. . . . A commendable law."

Wini continued: "Many were amenable to amendments to the law. . . ." **George Mills** reported, "There are 700 amendments for amending the State PSRO's." Wini commenting on the attitude of "non participation." "Here in Hawaii, we have over participation" (referring to the two letters of intent) and on the gist of the law: "The PSRO is widely interpreted as a cost control law."

## Tom Thorson's Nook

The city gal came west to a dude ranch. She rose at the crack of dawn and went moseying around eager to learn everything. . . . She came upon a cowpoke sharpening his knife on a wet stone. "What are you doing?" she asked with honest curiosity. The Paniolo continued to sharpen his knife and replied without looking up: "I'm the brain surgeon on this here ranch." "Oh, how exciting," she exclaimed. "See those calves grazing out there? I'm about to change their minds from ass to grass," the Paniolo explained. . . .

An east coast millionaire decided to invest in cattle ranching. He came west and looked over several ranches up for sale and finally found one he liked. He asked the realtor, "I hear there are rattlesnakes 'round these parts. . . . What do you do when one bites you?" The realtor explained, "You put on a tourniquet, open the wound with a sharp knife and suck out the poison." "What happens when you get bitten on the okole?" "That's when you discover who your true friends are."

## Conference Notes

A 51-year-old Korean man with a 6-month history of belching and bloating had a negative UGI series. Gastroscopy revealed a shallow gastric ulcer of the anterior upper body which biopsy proved to be Ca. At surgery, 90% of the stomach was removed and the patient went home on the 9th postop day on a multiple feeding diet.

Pathologist **Grant Stemmerman** elucidated, "There

*continued page 76*



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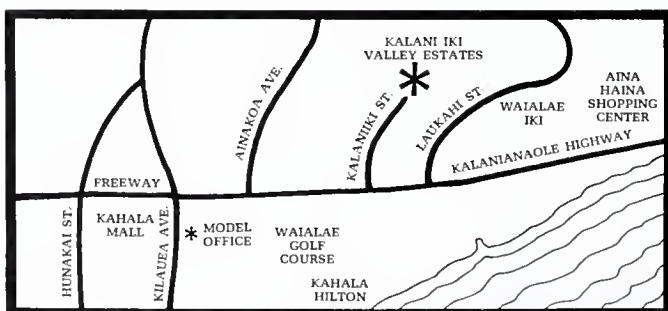
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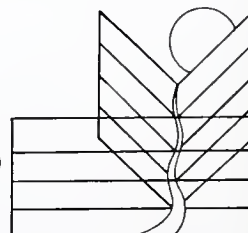
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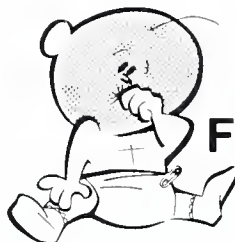
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are two types of gastric Ca. . . . The diffuse type and the intestinal type. . . . The diffuse type is most frequent in younger individuals esp in women, while the intestinal type is more frequent in men and in older individuals. . . . The intestinal type has a better prognosis and has twice the survival rate corrected for age. Countries with a high incidence of gastric Ca have predominantly the diffuse type and when the incidence of gastric Ca decreases in that country, the intestinal type tends to disappear. . . . Some patients have mixed forms, and in these patients, the cancer behaves like the diffuse type. The diffuse type metastasizes to lymph nodes and the intestinal type to the liver. The Korean frequency of gastric Ca is the same as for the Japanese and of the same epidemiological factor. . . ."

Stemmy then touched on CEA, cell kinetics and cell regeneration studies. . . . He pointed out that "German workers have identified cells producing CEA and report that intestinal metaplasia of gastric mucosa produce CEA." Fellow pathologist **Takushi Hayashi** who had recently returned from Montreal where he studied immunofluorescent studies of CEA using labeled anti-CEA antibodies showed electron microslides of his own work. Takushi pointed out that CEA is really nonspecific although it was originally touted enthusiastically as being specific for colon Ca. It has been subsequently proved to be elevated in other Ca's as well including lung and breast, in multiple myeloma, in alcoholic cirrhosis and more recently by German studies to be elevated in gastric mucosa and in the liver. The Montreal group has shown that non-Ca patients with elevated CEA titres later develop frank Ca. Takushi pointed out that its primary role at present is in the clinical followup of cancer post surgically since the titre falls within 48-hours if the cancer is extirpated. . . . Surgeon **Roy Tanoue** asked, "How effective is it in following Ca postoperatively?" Stemmy was quite rhetorical: "If I were a surgeon and had a falling titre, I would be happy. . . . If I were a surgeon and had a rising titre, I would be unhappy. . . ."

At a surgical statistical conference, the case presentation was that of a 74-year-old Filipino man admitted with weight loss, anorexia, and sy's and sx's of biliary obstruction. On exploratory, a large mass in the region of the head of the pancreas was biopsied and frozen sections at the time showed necrotic fat, but the final pathological diagnosis returned as reticulum cell sarcoma. The patient died a hepatorenal death and at post the tumor was found to extend from the diaphragm to the retroperitoneal viscera and the mediastinum. Crusading pathologist **Grant Stemmerman** expounded the limited use of the frozen section. "The real and only reason for doing a frozen section is when the surgical procedure is modified by the frozen section. . . . There are doctors in this room who have even left the operating room before the frozen section is done. . . . The frozen section is not for idle curiosity. . . . There are certain tumors which should not have frozen sections . . . for example the well differentiated carcinoma of the thyroid, and lymphosarcomas. . . . No one should ask for a frozen section of lymph nodes. . . . And I really don't think there is any indication for frozen sections of the breast. It's a badly used procedure with limited value. . . ." Stemmy went on to recommend a skeletal survey with the new scintiscan before doing a radical mastectomy. "A skeletal scan costs \$120 and it's a hell of a lot cheaper than doing a radical mastectomy. . . ." At this point **Dick Warsnick** was left to defend his scintiscan as the surgeons got their dander up. Dick pointed out that there was a 40% positive skeletal metastasis in breast Ca. Oncologist **Paul Condit** asked how soon the skeletal metastasis would show up in regular skeletal surveys as compared to the Scintiscan. Dick replied, "4-6 months later."

Surgeon **Bob Oishi** was quite caustic: "I wish to give my personal prejudices regarding the frozen section. . . . You don't have to have the feeling that this is a pressing

situation. . . . If you don't know, say you don't know. . . . When we're up there, we're stuck too. . . . We need help."

## Letters to the Editor

Our favorite contributor **Fred Reppun** writes: "We seem to learn little from the lessons of history. However, it is fortunate that time mellows the evils of our mistakes and enhances the memories of our glories. . . ." The mistake according to Fred is the fact that there was an American expeditionary force of 5,000 men in Siberia during and after World War I (which was to help snuff the life out of the Bolshevik infant movement in its cradle) and the glory was our own **Riley Allen's** project to repatriate Russian children from Leningrad. (For details, we are referred to the book, "Wild Children of the Urals" by **Floyd Miller**, 1965.)

**Monty Downs**, of the Hanalei Clinic, is alarmed by the fact that increasing numbers of people are choosing to give birth at home, whether or not a skilled midwife or doctor volunteers to help in the delivery, esp in communities in which the hospitals have archaic rules preventing husbands from sharing the pain and the ecstasy of childbirth with the woman they love by being in the labor and delivery room. . . . "It strikes me as very selfish and confusing to seek to prevent people whose values might be different from yours from having an opportunity to be helped by people who care."

**Mary Glover** of Waianae was prompted to write to the Editor when the Health Dept. announced that for lack of money that it was cutting back on its nutritional services to the community. She writes, "The poor are likely to be less healthy because of their poor nutrition and the poor nutritional condition makes treatments more frequent, costly and difficult. . . . Surely it is more economical (as well as more humane) to keep healthy than to try to patch them up." "City government's priorities do not make much more sense. Its bosses propose substantial salary boosts for themselves, but they can't hire enough staff to collect everyone's garbage regularly."

**D. L. Coleman** responded to a June 27 article in the *Advertiser*, "Advice for Physicians Who Fly Light Planes." D.L. says, "It maligns physicians as a class, stating that they are not capable of being good pilots because they cannot devote sufficient time to proficiency flying. . . . /The author/ also states that physicians are egotistical enough to believe that their medical expertise will carry them through flying difficulties. . . . Rather, these allegations of pilot-physicians having a poor accident record have been refuted by responsible members of the medical profession, particularly the Flying Physicians Association."

## Announcement

Honolulu's breast cancer detection project, funded jointly by the National Cancer Institute and the American Cancer Society, is opening in the Alexander Young Building. The Pacific Health Research Institute (PHRI) will administer the project, in cooperation with the Hawaii Division of the American Cancer Society.

Project plans call for screening 5,000 asymptomatic women between 35-74 in the first year. The examinations will be free. The screening involves a combination of methods including detailed history, palpation, mammography and thermography.

Honolulu's project is one of 20 throughout the nation designed to determine if mass screening and its resultant earlier detection will lower the death rate from breast cancer.

Physicians may refer asymptomatic women (ages 35-74) to the project by having them call 524-4337 for an appointment. Brochures on the project will soon be available from the American Cancer Society (telephone 531-1662) for physician and patient information.

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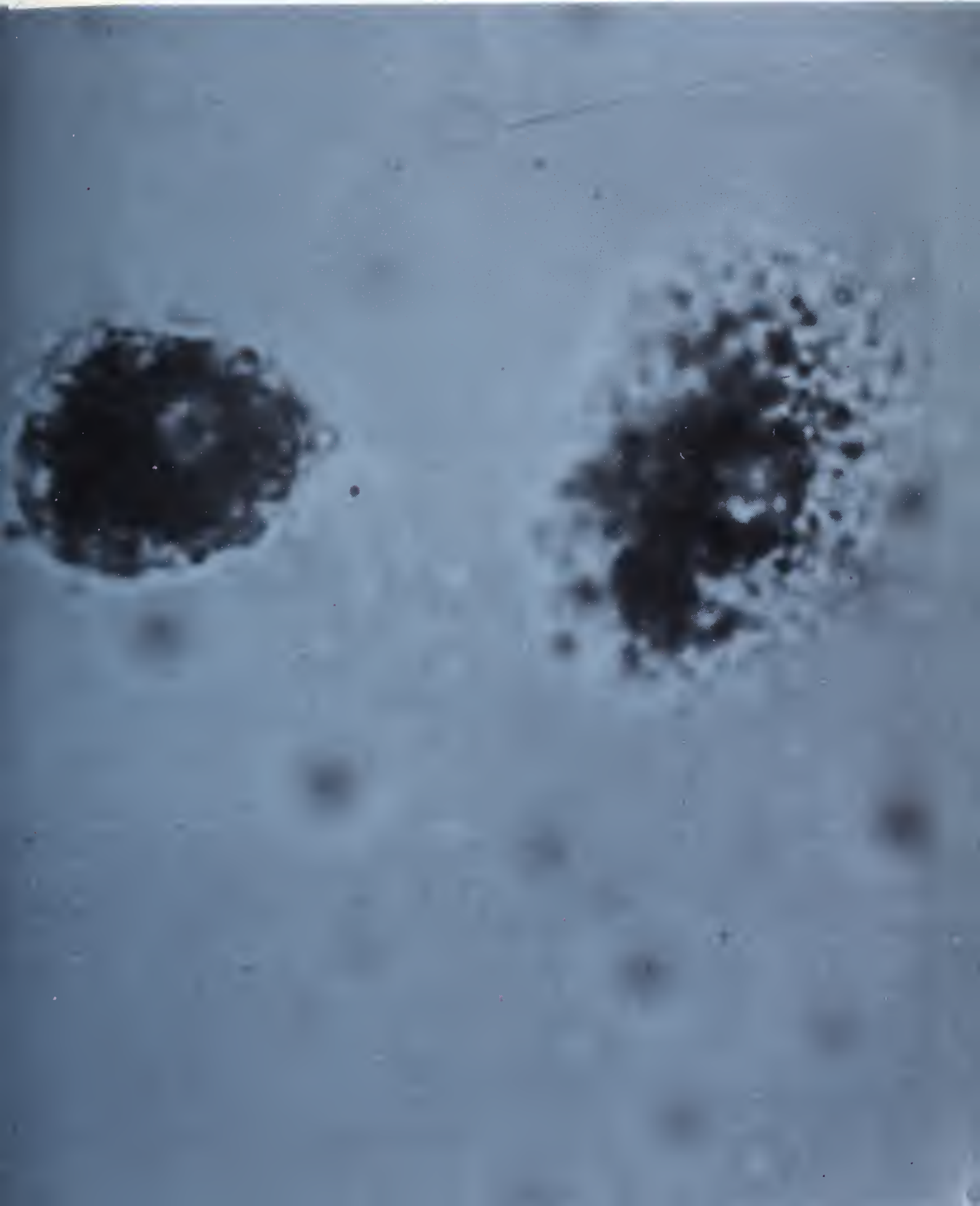
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# HAWAII MEDICAL JOURNAL

VOLUME 33 / NUMBER 3

• MARCH 1974







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**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant

medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

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vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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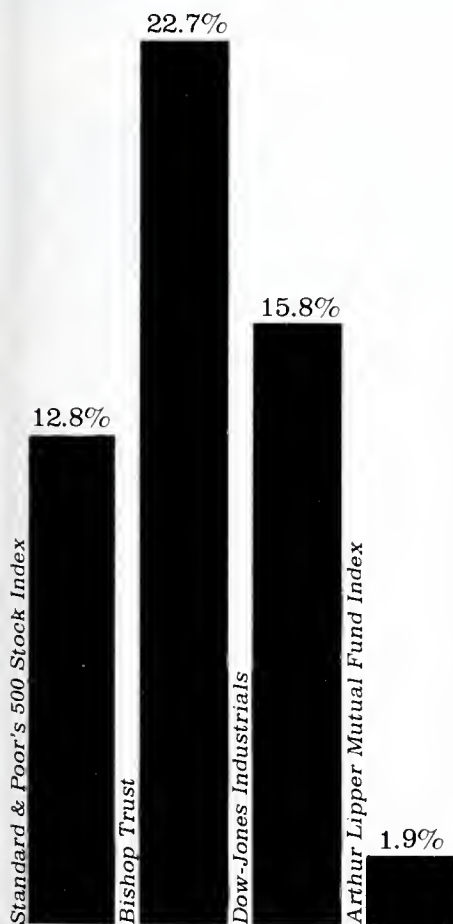
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**Indications:** Based on a review of PREMARIN Tablets by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications for use as follows:

**Effective:** As replacement therapy for naturally occurring or surgically induced estrogen deficiency states associated with: the climacteric, including the menopausal syndrome and postmenopause; senile vaginitis and kraurosis vulvae, with or without pruritus. **"Probably" effective:** For estrogen deficiency-induced osteoporosis, and only when used in conjunction with other important therapeutic measures such as diet, calcium, physiotherapy, and good general health-promoting measures. Final classification of this indication requires further investigation.

**Contraindications:** Short acting estrogens are contraindicated in patients with (1) markedly impaired liver function; (2) known or suspected carcinoma of the breast, except those cases of progressing disease not amenable to surgery or irradiation occurring in women who are at least 5 years postmenopausal; (3) known or suspected estrogen-dependent neoplasia, such as carcinoma of the endometrium; (4) thromboembolic disorders, thrombophlebitis, cerebral embolism, or in patients with a past history of these conditions; (5) undiagnosed abnormal genital bleeding. **Warnings:** Estrogen therapy should not be given to women with recurrent chronic mastitis or abnormal mammograms except, if in the opinion of the physician, it is warranted despite the possibility of aggravation of the mastitis or stimulation of undiagnosed estrogen-dependent neoplasia.

The physician should be alert to the earliest manifestations of thrombotic disorders (thrombophlebitis, retinal thrombosis, cerebral embolism and pulmonary embolism).

If these occur or are suspected, estrogen therapy should be discontinued immediately.

Estrogens may be excreted in the mother's milk and an estrogenic effect upon the infant has been described. The long range effect on the nursing infant cannot be determined at this time.

Hypercalcemia may occur in as many as 15 percent of breast cancer patients with metastases, and this usually indicates progression of bone metastases. This occurrence depends neither on dose nor on immobilization. In the presence of progression of the cancer or hypercalcemia, estrogen administration should be stopped.

A statistically significant association has been reported between maternal ingestion of diethylstilbestrol during pregnancy and the occurrence of vaginal carcinoma in the offspring. This occurred with the use of diethylstilbestrol for the treatment of threatened abortion or high risk pregnancies. Whether or not such an association is applicable to all estrogens is not known at this time. In view of this finding, however, the use of any estrogen in pregnancy is not recommended.

Failure to control abnormal uterine bleeding or unexpected recurrence is an indication for curettage.

**Precautions:** As with all short acting estrogens, the following precautions should be observed:

A complete pretreatment physical examination should be performed with special reference to pelvic and breast examinations.

To avoid prolonged stimulation of the endometrium and breasts in climacteric or hypogonadal women, estrogens should be administered cyclically (3 week regimen with 1 week rest period—withdrawal bleeding may occur during rest period).

Because of individual variation in endogenous estrogen production, relative overdosage may occur which could cause undesirable effects such as abnormal or excessive uterine bleeding, mastodynia and edema.

Because of salt and water retention associated with estrogenic anabolic activity, estrogens

should be used with caution in patients with epilepsy, migraine, asthma, cardiac, or renal disease.

If unexplained or excessive vaginal bleeding should occur, reexamination should be made for organic pathology.

Pre-existing uterine fibromyomata may increase in size while using estrogens; therefore, patients should be examined at regular intervals while receiving estrogenic therapy.

The pathologist should be advised of estrogen therapy when relevant specimens are submitted.

Because of their effects on epiphyseal closure, estrogens should be used judiciously in young patients in whom bone growth is incomplete.

Prolonged high dosages of estrogens will inhibit anterior pituitary functions. This should be borne in mind when treating patients in whom fertility is desired.

The age of the patient constitutes no absolute limiting factor, although treatment with estrogens may mask the onset of the climacteric.

Certain liver and endocrine function tests may be affected by exogenous estrogen administration. If test results are abnormal in a patient taking estrogen, they should be repeated after estrogen has been withdrawn for one cycle.

**Adverse Reactions:** The following adverse reactions have been reported associated with short acting estrogen administration:

nausea, vomiting, anorexia  
gastrointestinal symptoms such as abdominal cramps and bloating  
breakthrough bleeding, spotting, unusually heavy withdrawal bleeding (See DOSAGE AND ADMINISTRATION)  
breast tenderness and enlargement  
reactivation of endometriosis  
possible diminution of lactation when given immediately postpartum  
loss of libido and gynecomastia in males  
edema  
aggravation of migraine headaches  
change in body weight (increase, decrease)  
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**Dosage and Administration:** PREMARIN should be administered cyclically (3 weeks of daily estrogen and 1 week off) for all indications except selected cases of carcinoma and prevention of postpartum breast engorgement.

**Menopausal Syndrome**—1.25 mg. daily, cyclically. Adjust dosage upward or downward according to severity of symptoms and response of the patient. For maintenance, adjust dosage to lowest level that will provide effective control.

If the patient has not menstruated within the last two months or more, cyclic administration is started arbitrarily. If the patient is menstruating, cyclic administration is started on day 5 of bleeding. If breakthrough bleeding (bleeding or spotting during estrogen therapy) occurs, increase estrogen dosage as needed to stop bleeding. In the following cycle, employ the dosage level used to stop breakthrough bleeding in the previous cycle. In subsequent cycles, the estrogen dosage is gradually reduced to the lowest level which will maintain the patient symptom-free.

**Postmenopause**—as a protective measure against estrogen deficiency-induced degenerative changes (e.g. osteoporosis, atrophic vaginitis, kraurosis vulvae)—0.3 mg. to 1.25 mg. daily and cyclically. Adjust dosage to lowest effective level.

**Osteoporosis** (to retard progression)—usual dosage 1.25 mg. daily and cyclically.

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# A Comparison of Fee-For-Service and Capitation Medicine in a Low-Income Group in Honolulu

ROBERT M. WORTH, M.D., Ph.D.,<sup>†</sup> Honolulu

*A comparison of carefully matched low-income groups in a free-choice between capitation (HMO) and various fee-for-service environments shows:*

- 1) *Only about 15% of the fee-for-service ambulatory care being rendered in hospital OPD's, but with the remaining 85% of the workload very unevenly distributed among private physicians;*
- 2) *A slightly lower per-capita annual medical care cost in the capitation group, with no evidence of less service being given;*
- 3) *A heavy emphasis on "outreach" and health education carried out in the capitation group, costing \$62 per-subscriber-per-year in addition to medical costs;*
- 4) *A higher proportion of subscribers actually brought into medical supervision in the capitation group;*
- 5) *A fairly wide variation of patient attitudes and behavior in OPD, PMD, and HMO settings, with satisfaction expressed in each setting for those features selected by the patient as meeting his own needs and values—with a wide range of options available, people choose what they like.*

THE COMPARISON of fee-for-service medical practice with capitation or HMO (Health Maintenance Organization) practice is a favorite topic of first-hand or second-hand anecdotes and of earnestly supported opinions based on generalizations from these anecdotes. Such a comparison has also become an increasingly popular topic of studies usually based on "before and after" behavior or opinions of people recruited into HMO settings.<sup>1</sup> Comparisons of cost, experience, and opinion of matched comparison groups in fee-for-service or HMO settings are very scarce, due to

difficulty in finding appropriate groups for comparison. All such studies suffer from potential biases that make generalization risky:

- (1) Recruitment into an HMO is voluntary, so volunteer biases are inescapable;
- (2) In most studies, matching of comparison groups has been weak.

This study does not solve the problem of volunteer bias, but approaches the matching of groups better than any yet published.

Although Hawaii's poor have never been totally captured by a separate, segregated system of medical care, their options for selection of various patterns of fee-for-service care have only recently (1968) been opened widely on Oahu, and the option to join a capitation group (Kaiser Foundation Health Plan) became available in 1971. This full range of options (hospital out-patient departments, private physicians, or an HMO) is an almost unique event for large groups of poor people in any one location in the U.S.

## Methods

Our charge was to try to assess the "quality", cost, and utilization patterns of medical care for families living in the City and County of Honolulu who receive assistance from the DSSH (Department of Social Services and Housing, State of Hawaii) under the AFDC (Aid to Families with Dependent Children) program. We were given the following:

- (1) Access to fee-for-service billing data for AFDC patients;
- (2) Permission to interview fee-for-service AFDC patients;
- (3) Access to Kaiser eligibility files and medical records for AFDC patients;
- (4) Permission to interview Kaiser AFDC patients.

Our concept of "quality" of medical care is that it can best be evaluated in its technical components by comparing medical care process and patient outcomes with objective criteria previously derived through a series of judgments made by

<sup>†</sup> School of Public Health, University of Hawaii.

\* This article is a condensation of a longer report delivered to the Department of Social Services and Housing (DSSH), State of Hawaii in June, 1973.

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panels of medical care providers. The non-technical components of "quality" lie in the area of acceptability and accessibility of services, and these are best evaluated by the actual interview of patients.

We were not given permission to assess the technical components of "quality" of care through medical record review because of the absence of criteria widely accepted as being valid, so we had to abandon this part of "quality" assessment.

During the last seven months of 1971, under the terms of a contract between the Kaiser Health Plan and DSSH, six Kaiser "health coordinators"\* were recruiting 500 AFDC families into Kaiser membership from among the approximately 4,800 such families available in selected areas on the island of Oahu. The first six months of 1972 (the study period) represent the earliest attainment of a "steady state" in the Kaiser-DSSH program, during which an average level of 500 families was maintained at any one time (378 families who were constantly in the program from January through June, plus an incremental recruitment each month of a sufficient number of families to replace dropouts). These 378 "constant families" constitute the first definition of our *study group* (later reduced to 337 because of deletion of people from windward Oahu due to matching problems).

For each of the AFDC Kaiser-DSSH families, the AFDC eligibility files were searched for every family that matched the Kaiser family by ZIPcode of *residence* and by *family size* ( $\pm 1$ ). Out of the approximately 4,300 non-Kaiser (fee-for-service) families eligible for matching, 2,040 actually matched and thus went into our *comparison group*. An attempt was made to subdivide the comparison group by examining the bills submitted for payment during February through July 1972,<sup>†</sup> but this failed, due to the extreme scarcity of families who still use hospital OPD's as the principal source of care for the entire family.

A random sample of households was then drawn from the study group and from the comparison group to conduct a household interview designed for the following purposes:

- (1) To ascertain some of the patient's perceptions about the "quality" of his care—accessibility, acceptability, and communications;
- (2) To ascertain Child Health Conference usage patterns by age.

\* These were people largely hired from the Medicaid recipient group to perform health education and ombudsman roles.

† This one-month lag to allow for delay in submitting bills was not quite long enough for an optimum approximation of service dates to the Kaiser January-June service period, but we could not have afforded a longer delay in data processing past August to define our comparison groups and to get started on our interviewing, since this study was done with a March 31, 1973 deadline for completion of the final report.

The interviews were conducted in a concurrent fashion among both groups by one person to insure comparability and the interviews (except for about 5% where a telephone interview was the only viable alternative) were conducted in the patients' homes.

Because transportation, housing, environment, accessibility to specialists, and relative sources of recruitment into the Kaiser-DSSH plan are different in the suburban-rural areas of Oahu from what they are in urban Honolulu, and since all of these factors have some influence on medical care patterns, it was decided that *all comparisons between the two systems in this report would be done separately by geographic area*, rather than lumped together. This was an effort to control these confounding variables, as was pre-matching for precise ZIPcode of residence and for family size.

Since our Kaiser-DSSH study group represents *all* the "constant families" available, and the 2,040 comparison families represent *all* the matching families available, we are comparing two defined populations, not random samples of populations. Our utilization and cost data are therefore reported without statistical tests for significance, since no sampling error is involved.

### Results: Utilization and Cost

A distribution of the study group and comparison group into their various components by district of residence, family size, age, and sex showed a successful matching in the central Oahu and urban areas, but a very poor match in windward Oahu, which was therefore deleted from further consideration.

Fee-for-service bills were submitted to DSSH for 1,798 of the 2,040 matched comparison group families on Oahu during the study period. The billing pattern revealed that about 35% of the eligible physicians on Oahu sent no bills to any of our families. Another 21% of the physicians each sent bills to only one comparison group family. It would thus appear that the AFDC workload is very unevenly distributed, with about half the eligible fee-for-service physicians seeing almost no AFDC families,\* and with the remaining half of the physicians exhibiting a very wide range of activity. In the aggregate, these fee-for-service physicians provided at least some care during the study period to at least 85% of the comparison group AFDC families that sought any care. A few physicians billed as a solo effort about as many AFDC families in our sample as did the smaller hospital OPD's.

Table 1 shows that for our fee-for-service comparison group in central Oahu, the clinic/office

\* Many physicians on Oahu express dissatisfaction with the DSSH fee schedule (personal observation—Worth). A considerable number of AFDC patients report difficulty in finding a private physician who will accept them as a regular patient.

TABLE 1.—Distribution of ambulatory visits made by 1,293 eligible people in Kaiser-DSSH AFDC families and by 6,367 eligible people in matched AFDC families in fee-for-service medical environments, central Oahu and Urban Honolulu, January-June, 1972.

SOURCE OF CARE	TYPE OF VISITS	DISTRICT OF RESIDENCE							
		CENTRAL OAHU				URBAN			
		# VISITS	% OPD VISITS	# PEOPLE ELIGIBLE	ANN. RATE/ PERS.	# VISITS	% OPD VISITS	# PEOPLE ELIGIBLE	ANN. RATE/ PERS.
Fee-for-Service	Clinic/office ER	3,664 343	(2%)		4.8 0.5	10,061 821	(12%)		4.1 0.3
	Total	4,007		1,516	5.3	10,882		4,851	4.5
Kaiser-DSSH	Clinic/office ER	Kaiser 1,021* 124	OPD or PMD (3%)		4.3 0.5	Kaiser 1,496* 230	OPD or PMD (2%)		3.8 0.6
	Total	1,177		492	4.8	1,750		801	4.4

\* Best estimate from counting Kaiser Clinic Processing Records plus the small number of fee-for-service visits billed to DSSH for the Kaiser patients by other providers.

TABLE 2.—Distribution of total medical care costs\* for 1,293 eligible people in Kaiser-DSSH AFDC families and 6,367 eligible people in matched AFDC families in fee-for-service environments, central Oahu and urban Honolulu, January-June, 1972.

SOURCE OF CARE	DISTRICT OF RESIDENCE						APPROX. ADDITIONAL COST TO STATE PER ELIGIBLE PERSON		
	CENTRAL OAHU			URBAN HONOLULU					
	6-MOS. DSSH MEDICAL COST	# OF PEOPLE ELIGIBLE	ANNUAL DSSH MED. COST/ ELIGIBLE PERSON	6-MOS. DSSH MEDICAL COST	# OF PEOPLE ELIGIBLE	ANNUAL DSSH MED. COST/ ELIGIBLE PERSON	CHC SUBSIDY†	TRANSPORTATION	HMSA DATA PROC.
Fee-for-Service	\$128,447	1,516	\$169	\$387,560	4,851	\$160	\$4	\$0.50	\$6
Kaiser-DSSH	\$ 39,257	492	\$160	\$ 64,051	801	\$160	\$2	Outreach‡ \$62	

\* Eyeglasses and dental care are the only exclusions in these data.  
† Child Health Conferences of the State Health Department.  
‡ Costs attributable to outreach services to these 337 families (see text).

visit rate was about 12% higher than for the Kaiser-DSSH group, with the emergency visit rate the same and with only 2% of non-emergency office visits going to the OPD's. In the urban area 12% of such fee-for-service visits were to OPD's.

In the urban area, the rate of office/clinic visits was 7% higher in the fee-for-service comparison group than in the Kaiser-DSSH group. The frequency of use of the emergency room in the fee-for-service group was only half of the frequency in the Kaiser-DSSH group,† however, so the total rate of ambulatory visits does not differ appreciably in the two urban groups.

Table 2 displays medical care costs calculated from all payments made by DSSH, except for eye glasses and dental care, which are excluded from the Kaiser-DSSH contract and were therefore also

excluded from the fee-for-service calculations. The Kaiser-DSSH group has an additional cost of about \$62 per person per year attributable to the outreach program.‡

In central Oahu, the average annual cost for medical care appears to be about 5% higher in the fee-for-service comparison group than the \$160 per eligible person per year found in the Kaiser-DSSH group.

In the urban area, the comparison group is averaging an annual medical cost of about \$160 per person per year, essentially identical to that found in the Kaiser-DSSH group.

‡ The total budget of the Kaiser-DSSH Health Plan health coordinator program and its administrative office (\$59,827 during the study period) was multiplied by 337,500 to estimate costs attributable to these 337 families. These costs were then distributed geographically in proportion to the size of the two Kaiser groups. The gross income to Kaiser during the study period for these 337 families was \$143,631. The difference between this and the attributable outreach program costs (\$40,323) is \$103,308, which is what remained for medical care, as estimated by this subtraction method. This was distributed geographically in proportion to the size of the two Kaiser groups. No direct measurement of actual medical care costs was possible for the Kaiser group.

† One wonders if the relatively high ER utilization rate by the urban Kaiser group is an artifact introduced by the inclusion in this figure of some visits to the emergency room while it is functioning partially as a non-appointment clinic after 4:30 P.M.



TABLE 3.—Distribution of total medical care and related costs billed to DSSH for 1,206 people in Kaiser-DSSH AFDC families that utilized medical care and for 5,667 people in matched AFDC families that utilized medical care in fee-for-service environments, central Oahu and urban Honolulu, January-June, 1972.

SOURCE OF CARE	DISTRICT OF RESIDENCE						TOTAL
	CENTRAL OAHU			URBAN HONOLULU			
	% OF ELIGIBLE FAMILIES WITH UTILIZA-TION	# OF PEOPLE IN THEM	ANNUAL MEDICAL CARE COST/ PERSON*	% OF ELIGIBLE FAMILIES WITH UTILIZA-TION	# OF PEOPLE IN THEM	ANNUAL MEDICAL CARE COST/ PERSON*	
Fee-for-service	84%	1,316	\$196	90%	4,351	\$179	\$182 + data proc.
Kaiser-DSSH	92%	453	\$173	94%	753	\$170	\$171 + outreach

\* Medical care costs shown in Table 2 divided by total number of people in utilizer families, adjusted to annual rates. *CHC subsidy extra.*

Another way, perhaps more realistic, of looking at comparative costs in these two systems would be to assume that the extra \$62 cost per person of the outreach program in Kaiser is what increased their proportion of utilizing families (families or accounts for which some medical care activity was recorded during the study period) to a level higher than that seen in the fee-for-service groups (Table 3). In any case, since Kaiser was giving medical care service to a higher proportion of its families than was the case in the comparison groups, and since the cost of care in a fee-for-service environment is *directly* related to utilization, the utilization factor should be equalized when looking at equivalent costs (rather than cash costs). Table 3 shows such a comparison of costs for all members of families (accounts) that showed any utilization during the study period. The overall average annual medical care cost per person in utilizing families in the fee-for-service group is about 6.5% higher (excluding billing costs) or 10.5% higher (including billing costs) than in the Kaiser-DSSH group (excluding outreach costs).

The question as to what services are actually being bought at present in these two medical care systems was examined in Table I (ambulatory visits), and similarly for laboratory studies and x-ray studies. It was clear from these tabulations that the Kaiser physicians were using these procedures (which are not separately billed to DSSH but are included in Kaiser's standard capitation fee) at a very significantly higher rate than their fee-for-service counterparts.

We also tried to get a comparative count on the number of surgical procedures being done in the two systems, but we were unsuccessful because many procedures that were billed as surgical in

the fee-for-service environment (such as an injection into a joint) could not be identified and counted as such in Kaiser, where no bills are sent for individual services to the study group.

Table 4 shows the number of hospital days per eligible person. This service was very accurately countable in both systems. We note no difference between the rates for the two systems in the urban area, but in the central Oahu area, the average number of hospital days goes up in the fee-for-service system and down in the Kaiser group, so that there is a rather wide difference.

### Results: Household Interviews

While we were not able to assess the technical aspects of quality of care other than by what may be inferred from the utilization data, we were able to assess the patient's perceptions of accessibility and acceptability of their care by means of household interviews. These opinions can be summarized as follows:

#### Hospital OPD's

The usual pattern was for patients to show up without an appointment, to wait over an hour to be seen, not to see the same doctor twice, but to receive "a very thorough examination." Although the clinic doctor was seen as being open for discussing problems, any follow-up was usually through the clinic nurse. The telephone was seldom used for medical advice. Most of the people who stayed with the clinics did so because they felt accepted there—no chance of rejection even though the wait was long and the relationship with the doctor was transient. They also appreciated the variety of resources available in one location and the active outreach ("reminder notes") that has been instituted in recent years.

TABLE 4.—Distribution of hospital days experienced by 1,293 eligible people in Kaiser-DSSH AFDC families and by 6,367 eligible people in matched AFDC families in fee-for-service environments, central Oahu and urban Honolulu, January-June 1972.

SOURCE OF CARE	DISTRICT OF RESIDENCE					
	CENTRAL OAHU			URBAN HONOLULU		
	# HOSP. DAYS	# PEOPLE ELIGIBLE	ANNUAL RATE/ PERSON	# HOSP. DAYS	# PEOPLE ELIGIBLE	ANNUAL RATE/ PERSON
Fee-for-service	565	1,516	0.75	1,624	4,851	0.67
Kaiser-DSSH	111*	492	0.45	273*	801	0.68

\* As ascertained from PAS/MAP hospital discharge summaries for Kaiser Hospital.

### Private Physicians

The usual pattern for patients was either to show up without an appointment or to be "worked into" the schedule within 24 hours of calling for an appointment. The waiting time in most offices tended to be short, but in some rural offices it was not unusual to wait for over an hour. While the doctor was seen as being open to discussing problems (except for a very considerable minority in the urban area), there was often a feeling that the examination itself was hurried or superficial. Follow-up advice was primarily through the doctor.

The rural group (where longer-term relationships have been established) used the telephone for advice quite frequently, and the patients expressed satisfaction with their care. In the urban area (where free choice of physician has been more recent), the patients were considerably less enthusiastic, and used the telephone less often for medical advice. The difficulty in finding private dental care was seen as more severe at this time than any problems with medical care.

### Kaiser

The usual pattern was for patients to telephone, requesting to see their regular doctor (as instructed by their health coordinator) and then having to wait a few days for an appointment to be seen by him (walk-in or urgent clinics always available, but usually with another doctor). Once in the office, the waiting time peaked at about one-half hour (almost no waits over one hour). The doctor was generally seen as open to discussing problems, and follow-up advice was divided between the doctor and the nurse, with the health coordinator playing a minor role. The telephone was used fairly often as a source of seeking advice in the urban area, but less so in the rural. The nurse was the main source of telephone advice. The recruitment into Kaiser has been too recent for any comparative assessment of the kind of long term relationships that have built up over the years with certain nurses in the OPD's and with certain private physicians since 1968.

### Determinants of Choices Made by Patients

The patients expressed great gratitude for freedom of choice, which allows them to make personal decisions to solve problems of distance, transportation, waiting time, cordiality, consistent relationships, and "thoroughness." Different patients place different values on these different aspects of medical care and *can now seek the patterns that best meet their own desires*. There is also evidence that the element of competition has resulted in welcome changes in some practices of the hospital OPD's. Regardless of where the DSSH clients go for medical care, most of them remain very sensitive and vulnerable to any hint of being "second class."

A large minority of fee-for-service interviewees deliberately took their children to medical institutions other than their own if they felt that the quality of medical care was better, despite transportation inconvenience or waiting time. In other words, for their children quality is seen as more important than convenience, but for themselves, convenience seems more important.

### Acknowledgments

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1. Mr. Myron Thompson, Director of DSSH, who authorized access to records, Mr. Jack Wakayama, DSSH staff, who helped arrange details, helped us get telephone numbers of interviewees, and offered valuable suggestions.
2. The staff of HMSA (Hawaii Medical Service Association, which does data processing for AFDC billings), who provided free consultation and computer time and offered valuable suggestions.
3. Dr. William Dung, President, Hawaii Permanente Medical Group, who authorized access, Mr. Bud Hatch, who provided patient listings, Mrs. Bert Kilmer, who provided medical record assistance, Mr. Richard



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Gratitude is also expressed for the excellent work done by Mrs. Annie Worth and Mrs. Mary Choy in abstracting medical records and interviewing patients.

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1. Gaus CR, Fuller NA, Bohannon C: HMO evaluation: Utilization before and after enrollment, a paper presented at the APHA Annual Meeting Atlantic City, NJ, Nov, 1972.

*Our friend, the rat, may be of help in future allergy testing.*

## The Rat Mast Cell Degranulation Test in Allergy: Review on Principles and Clinical Application

CLIFFORD LO, and M. MITSUO YOKOYAMA, M.D., *Honolulu*

● *Mast cells play an important role in IgE-mediated immediate hypersensitivity (allergy), releasing histamine and other pharmacologically active substances upon degranulation. A recently developed indirect IN VITRO test for the detection of a wide range of allergies uses the mast cells of rats. The rat mast cell degranulation (RMCD) test is proposed as a possible clinical test for allergy, replacing the notoriously unreliable, inconvenient, and sometimes dangerous skin test. The purpose of this study is to develop and evaluate this test for clinical use, screening for allergic reactions.*

IN 1879, Paul Ehrlich<sup>1</sup> presented a description of a connective tissue cell with basophilic, metachromatically staining granules in its cytoplasm, a description which remains essentially accurate and adequate to this day. He called these cells "Mastzellen" or "food-cells" in the belief

that their function was in connective tissue nutrition. These mast cells are in many ways related to the more commonly known basophilic leukocytes.

Mast cells, or tissue basophils, are differentiated from their blood counterparts by their variable, rather than exclusively, round cell contour; round or oval, comparatively small nucleus; coarse granules, usually obscuring the nucleus; and insolubility of granules in water and methanol.

Mast cells occur in the loose connective tissue of most animals, especially around small blood vessels, being in the human most abundant in the skin, thymus, uterus, bladder, tongue, mesentery, and digestive tract. Within mammalian species, there are wide differences in size and distribution of mast cells, for example, they are abundant in the liver of dogs but absent in rabbits.<sup>2-4</sup>

For many years, their conspicuous presence and apparent lack of functional significance constituted the riddle of the mast cell. In 1937, Holmgren and Wilander<sup>5</sup> made a breakthrough in this problem by discovering that the mast cells

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Kuakini Medical Research Institute, 347 North Kuakini Street, Honolulu, Hawaii 96817.

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were the site of heparin storage, and the role of mast cell heparin as the natural anticoagulant of circulating blood was postulated.

Within the last 20 years, the mast cell was also linked to the histamine system and anaphylactic phenomenon. Apparently, there is liberation of both heparin and histamine from the liver of a dog in anaphylactic shock,<sup>6</sup> suggesting that mast cells are responsible for allergic reactions as well as anticoagulation. The mast cells, reacting to chemical or mechanical stimuli, degranulate, liberating their biologically potent agent. In addition to heparin and histamine, which are complexed with zinc in the granules, mast cells have also been found to contain a whole list of pharmacologically active substances<sup>2</sup> (Table 1).

TABLE 1.—*Biologically potent substances present or possibly present in mast cells.*

- 1. Acid mucopolysaccharides
  - Heparin
  - Hyaluronic acid (?)
- 2. Amines
  - Histamine
  - Serotonin (in mice and rats)
  - Dopamine (?)
- 3. Slow reacting substance (SRS)
- 4. 'Spreading substance'
- 5. Enzyme systems
  - Histidine decarboxylase
  - 5-Hydroxytryptamine decarboxylase
  - DOPA decarboxylase
  - Phosphatidase A (Lecithinase A)
  - Proteasse
    - Mast cell chymase
    - Mast cell tryptase
    - Fibrinolytic enzyme
    - Leucine aminopeptidase
- Other substances
  - Acid phosphatase
  - Alkaline phosphatase
  - Thermostabile peroxidase
  - Cytochrome oxidase
  - Succinic dehydrogenase
  - Beta-glucuronidase
  - ATPase

Cited from Sagher, F. and Even-Paz, Z., Mastocytosis and the Mast Cell, Year Book Med. Publ., Chicago, 1967.

Once thought to have no function, the mast cell seems now to have too many. An interesting twist to Ehrlich's original assumption of its function has been proposed by Riley.<sup>7</sup> Noting that incoagulability of blood during anaphylaxis is a phenomenon specific to dogs, Riley disputes the anticoagulant function of mast-cell heparin. He suggests that heparin is the stored form of hyaluronic acid, which is the ground substance from which extracellular collagen fibrils are formed. Thus, mast cells seem to play an important role in the maintenance of connective tissue integrity, justifying Ehrlich's prophetic nomenclature.

**Mast Cells and Hypersensitivity**

The importance of mast cells for this study lies in their participation in the allergic reaction, especially in anaphylaxis. Mediated by histamine and

other substances released from tissue mast cells, hypersensitivity to certain antigens is clearly linked to antibodies which caused damage to mast cells. The antibodies involved in immediate hypersensitivity, known as reagins, have been demonstrated by Ishizaka<sup>8</sup> to be a special class of gamma globulins, designated IgE by the World Health Organization in 1968.<sup>9</sup>

Immunoglobulin E is the skin-sensitizing antibody which is involved in the Prausnitz-Küstner passive transfer reaction.<sup>10</sup> IgE concentration in normal human serum is very low in comparison to other serum immunoglobulins, ranging from 0.1 to 2.0 µg/ml, or about 0.02% the IgG level. Marked elevation is found in patients with various atopic diseases such as extrinsic bronchial asthma, allergic rhinitis, parasitic infestations, and atopic eczema.<sup>11</sup>

Conclusive evidence that IgE as the mediator of reaginic hypersensitivity was presented when allergen or anti-IgE was shown to cause degranulation of basophilic leucocytes and tissue mast cells, resulted in the release of histamine and slow-reacting substance (SRS-A), and provoked an erythema-wheal reaction in sensitized skin.<sup>12</sup> Preformed complexes of allergen and IgE antibody or aggregate E myeloma protein also induced skin reactions.<sup>13</sup>

The mechanism of the hypersensitivity response is being investigated by Ishizaka;<sup>14</sup> apparently the Fc portion of the IgE molecule fixes to the surface of the mast cells, and the bridging of two cell-bound IgE molecules by the antigen induces a series of histamine and other active substances from the basophilic granules. Degranulation, which accompanies histamine release, is described as intensive cellular agitation in which granules move to the surface and leave the cell. Vacuolization gives the cell a rugged "mulberry" appearance.<sup>15</sup> Complement has been shown not to be involved.

Recently, Haddad and Korotzer<sup>16-18</sup> and Perelmutter<sup>19-22</sup> have developed an *in vitro* test of IgE-mediated immediate hypersensitivity using mast cells gathered from the peritoneal cavity of the rat. This indirect test depends on the ability of human IgE to passively sensitize mast cells of another species (heterocytotropy), with subsequent binding of antigen resulting in degranulation.

Alternatively, it may be that specific preformed IgE antibody-antigen complexes are responsible for degranulation, but evidence strongly suggests that it is the former mechanism that takes place. It was found<sup>16, 19</sup> that (1) sensitive serum heated at 56°C. for 2 hours to destroy the cell-fixing properties of IgE lost its degranulating activity; (2) mixtures of mast cells and serum, washed to



remove free IgE, showed degranulation upon addition of antigen or anti-IgE; (3) human reagins can also sensitize monkey tissue;<sup>23</sup> and (4) rat mast cells sensitized with rat homocytotropic antibodies degranulated when challenged by anti-human IgE serum suggesting that human IgE and rat antibodies are structurally similar.

Studies have shown that the rat mast cell degranulation test has reliably detected hypersensitivity to pollens,<sup>17, 20</sup> food antigens,<sup>16, 24</sup> and drugs.<sup>18, 19, 21, 22</sup> Many *in vivo* and *in vitro* tests have been proposed as alternatives to the notoriously unreliable skin test, but the rat mast cell degranulation test seems to be the most promising. The purpose of this study is to develop this test and evaluate its clinical use. For the standardization of the method, *Aspergillus glaucus*, *A. terreus*, *A. nidulans*, *A. niger*, *A. fumigatus* and ragweed were used against patients' sera containing antibodies. The method was then applied for the antibody screening test of penicillin.

### RAT MAST CELL DEGRANULATION TEST (RMCD TEST)

#### 1. SERUM SAMPLES:

Serum for this test was drawn from three sources. To initially establish its validity, serum from four individuals who had recently episode anaphylactic reactions to penicillin and one non-sensitive subject were tested. A total of 115 serum samples from patients in Kuakini Hospital and 28 samples from the Blood Bank of Hawaii were screened to correlate test results with clinical histories. All serum was tested within four days of collection, during which time it was kept at 4°C. A few exceptions were stored frozen at -20°C. for no more than one month.

#### 2. MATERIALS NEEDED FOR LABORATORY TESTING ARE AS FOLLOWS:

- (a) Albino Wistar strain rats, preferably male.
- (b) Ether.
- (c) Surgical tools: scissors, forceps, clamps, etc.
- (d) Hanks' Basic Salt Solution (Microbiological Associates, Inc., Bethesda, Md.).
- (e) Polyethylene centrifuge tubes (100 x 12 mm).
- (f) Syringe (20 ml), needles (20G), and polyethylene tubing.
- (g) Neutral Red or Brilliant Cresyl Blue Stain (1.5% in alcohol).
- (h) Microtiter plates.
- (i) Microscope, slides and coverslips.
- (j) Serum samples (0.1 ml).

#### 3. RAT MAST CELL DEGRANULATION TEST EXPERIMENTAL PROTOCOL (FIG. 1)

- (a) Suffocate an albino rat in ether and expose peritoneum.

FIG. 1.—Negative result of mast cell degranulation with intact cells.



- (b) Inject 10 ml Hanks' basic salt solution into peritoneal cavity and massage for 2 min.
- (c) Open abdomen; using the polyethylene tubing connected to a syringe, collect fluid in 12 ml polypropylene tube.
- (d) Centrifuge at 1500 rpm for 10 min.
- (e) Discard supernatant, resuspend cells in 1-2 ml Hanks.
- (f) Prepare test slide, prestain with Neutral Red or Brilliant Cresyl Blue.
- (g) Mix equal volumes (0.025 ml or one pipet drop) or prewarmed mast cell suspension, antigen (aqueous penicillin G at 1000 U/ml), and/or human serum in a well of a microtiter plate.
- (h) Incubate at 37°C. for 3 min.
- (i) Place one pipet drop of the mixture on a prestained slide, covered with a glass coverslip, and count 100 mast cells. Whereas intact cells were evenly and heavily stained (although in some cases the unstained nucleus was visible) with smooth cell membranes, degranulated cells revealed distinct granules both inside the cell and extruded through the membrane. In many cases, vacuolization produced a large, distorted "mulberry" appearance (Fig. 2).

FIG. 2.—Positive reactions of mast cell degranulation test.

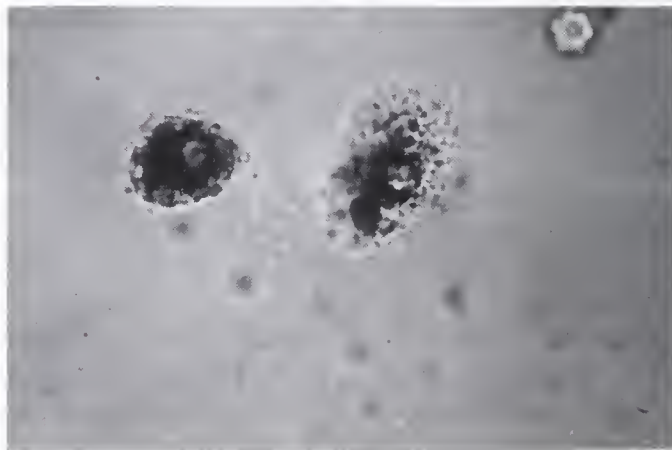


TABLE 2.—Results of RMCD Test using various concentration of penicillin with patient's serum.

Mixture	CONCENTRATION OF PENICILLIN G (U/ML)				Control (without penicillin)
	50,000	10,000	5,000	1,000	
RMC + patient's serum	55%	59%	54%	53%	5%
RMC + normal serum	14%	10%	15%	3%	.....

### Results

The rat mast cell degranulation test gave predictable results with known positives, thus confirming theoretical expectations and previous findings. Table 2 shows typical results when serum from a patient, who had had a recent anaphylactic reaction to penicillin, was challenged with varying concentrations of aqueous penicillin G. Although determining percentage degranulation took some familiarity, recounts by unbiased observers gave remarkably similar values: discrepancies were insignificant. A positive reaction was arbitrarily interpreted as degranulation in more than 20% of the mast cells and at least twice the value of controls.

Less satisfactory results were obtained with the screening test for penicillin allergy. A number of samples showed a high degree of spontaneous degranulation in the controls, invalidating results. Correlation with clinical histories, taken from hospital records, was very low: several patients who claimed to be sensitive to penicillin did not show positive results and several samples with marked degranulation compared to controls showed no history of penicillin allergy. However, Levin<sup>25</sup> found that only 15% of his subjects with "reasonably acceptable" clinical histories of penicillin allergy gave positive skin test reactions, casting doubt on the reliability of both clinical histories and skin tests. In any case, two-thirds of the subjects (94 out of 143) showed negative reactions in the rat mast cell degranulation test and had correspondingly negative histories to justify this test for clinical use in conjunction with other tests.

### Discussion

There has been some debate about the mechanism of penicillin hypersensitivity.<sup>26, 27</sup> Levin<sup>25, 28</sup> notes that benzylpenicilloyl polylysine (PPL) a minor determinant mixture (MDM), and penicillin derivatives, are useful for detecting allergic hypersensitivity, especially of the immediate, anaphylactic type, and suggests that a haptenic model of antigenicity is in order. Degradation products of benzylpenicillin bind to tissue macromolecules to form new antigens which evoke a variety of responses. However, cross-reactivity between the aqueous benzylpenicillin used in this study and

the penicillin derivatives or commercial synthetic preparations (eg, phenethicillin, dicloxacillin) is expected to insure validity of this test. An exception is ampicillin; negative results found by Haddad and Korotzer<sup>18</sup> are attributed to the absence of an IgE mediator in ampicillin hypersensitivity.

Concentration of the antigen to evoke degranulation did not seem to be crucial within a wide range of dilutions. However, brief trials to determine a suitable concentration of each new antigen tested are highly recommended because of possible spontaneous degranulation of controls or possible prozone phenomena, which were in fact experienced in preliminary experiments with ragweed antigen.

Storage of serum and preservation of IgE activity may cause some difficulty. Fresh serum gave much clearer results than serum refrigerated at 4°C. for even a few days or frozen at -20°C. for short periods. Schwartz, *et al*<sup>29</sup> observed that storage must be done at -20°C. to maintain optimum cytopathic activity; Perelmutter<sup>20</sup> found that even this was unsatisfactory. Therefore serum should be collected on the same day as the test for precise clinical evaluation. Plasma is not acceptable because it clumps cells.

Preparation of test specimens was quite simple and did not require a high degree of precision in technique. Since water is the agent which releases mast cells from the rat peritoneum,<sup>30</sup> any aqueous solution should be suitable for collection. Phosphate-buffered saline collected mast cells, but was not suitable for preservation; Hanks' basic salt solution was an adequate and much less expensive substitute for Medium 199. Lymphocytes and occasionally red blood cells were also present in the suspension but as they do not adversely affect results, washing is unnecessary. In mast cell suspensions collected from rat mothers, acidic pH levels resulted in spontaneous degranulation. However, after incubation for various times (30 min. to 3 hrs.) and at various temperatures (4°, 25°, or 37°), the cells regenerated. Mast cells remained viable at all temperatures (4° to 37°) for up to 8 hrs. but attempts to preserve them overnight were unsuccessful.

Surprisingly, mixtures of antigen, serum, and mast cells produced identical degranulation counts for at least 2 hrs. after the reaction. This implies



that mast cells do not necessarily lyse because of degranulation, and that degranulation is reversible even *in vitro*. Once slide preparations were made, counts had to be done within 30 minutes; siliconized slides and vaseline wells did not prevent cell lysis.

A convenient technique was to pre-stain the slide with alcohol-based stain smeared with a glass rod. Using 22 x 22 coverslips, control and experimental specimens could be prepared side by side on the same slide. Counts should be made at least 30 sec. after slides were prepared. The glutaraldehyde fixing technique described by Perelmutter and Millard<sup>21</sup> could not be duplicated.

With several serum samples, there was a high percentage of degranulation in both controls and experimentals. Perelmutter's<sup>19, 21</sup> suggestion that pre-treating the mast cells with rat serum to reduce non-specific sytopathic effects of human serum worked, but indiscriminate use of rat serum is not recommended because it produces poorer preparations for non-cytopathic serum samples.

### Conclusions

The rat mast cell degranulation test is a very

simple, rapid *in vitro* test with a minimum of inconvenience for the patient; many studies have demonstrated its reliability, but at this stage of its development, it is impossible to recommend that the RMCD test be adopted as the sole clinical determination of allergy. Lack of a suitable standard of comparison for determining reliability is the major problem. Direct determination by intradermal injection or inhalation is dangerous and should only be resorted to in carefully controlled hospital experiments. Provocative titration<sup>31</sup> is more time-consuming and inconvenient, but much safer. We conclude that the RMCD test can be used as a preliminary screening test for all suspected cases, but that its results be accepted as suggestive, not definitive; positive or ambiguous results should be followed with other tests such as provocative titration.

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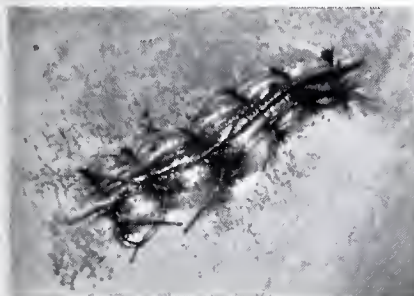
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Independent and hospital laboratories have long been subject to outside proficiency standards established by the Center for Disease Control (CDC) in Atlanta and their own state departments of health. Commercial laboratories doing business across state lines are also subject to strict Federal standards of control. Recently legislation in California, Arizona, and Maryland has made it mandatory for physicians' office laboratories in those states to participate in proficiency testing. Now in Hawaii such standards will soon apply to all office laboratories with more than two laboratory personnel, as well as to independent and hospital laboratories.

Much has been said but very little documented about the reliability of laboratory tests performed in the physician's office. Now there is available a program which can document the reliability of laboratory tests in the doctor's office and also provide a mechanism for laboratory improvement if needed. This program will be accepted by the Hawaii State Department of Health and is called PEP (Proficiency Evaluation Program). It is sponsored by the American College of Pathologists and endorsed by the American College of Physicians and the American Academy of Family Physicians. Participation is confidential and (except for clinic and group labs in California, Arizona, Maryland, and, soon, Hawaii) entirely voluntary.

The program offers the physician an inexpensive system for monitoring the capabilities of his office laboratory. It enables him to evaluate specific tests, reagents, and instruments for accuracy and precision. It assists him in managing his laboratory techniques and personnel, and as-

sure him of quality test results. It helps to maintain high standards of patient care.

In Hawaii the Department of Health has been given the responsibility to update its regulations governing clinical laboratory practices. The proposed regulations, closely patterned after the existing Medicare regulations, will affect the practice of every physician in Hawaii. The regulations set standards for the licensure of clinical laboratories and their staffs. Particular attention is given to proficiency testing and quality assurance programs. The Clinical Laboratory Advisory Committee, appointed from representative members of physician and allied science laboratory personnel, advises the Director on the administration and enforcement of the regulations. The PEP program will allow every physician a simple and efficient way to meet these new standards.

You may wonder whether these changes are necessary, and whether they will guarantee quality laboratory service. We believe they will. The proposed regulations will provide quality laboratory service and will allow independent review by your peers. Although such changes may seem superfluous, the fact remains that the public trust cannot be sustained by simply saying it is so and expecting it to be so! With the increasing requirement for independent review by third party payees, minimum standards such as these become increasingly important. With this new look, you too can meet the challenge of the future.

Detailed information about proficiency testing and quality assurance programs can be obtained from the Hawaii Society of Pathologists, c/o Young Paik, M.D., President, or write the College of American Pathologists, 230 N. Michigan Avenue, Chicago, IL 60601.

JOHN M. HARDMAN, M.D.  
Colonel, MC  
Past President, H.S.P.

## Life in These Parts

Missionary-adventurer and gentleman scholar extraordinary **Charley Judd** had returned from a 31-day trip around the Big Island (100 miles by canoe and 180 miles on foot) as described in the chronicles of missionary William Ellis in 1823. Charley commented on the medical oddities experienced on the trip: "Our only sickness really came from drinking too much Budweiser provided by friendly residents. . . . There were a couple of other syndromes such as the urge to look long and deep into the water. . . . I experienced this myself. . . . I went on the replacement theory and carried 4 cans. . . . Others went on the lessened intake theory. . . ."

Tidbit from **Dave Donnelly's** column: "Hospitalized for minor surgery today is Sue Teehan. Her surgeon is **Dr. Harry Wong** and her anesthesiologist is **Dr. Eugene Wong**. She is just cheery enough to hope *two Wongs make a Right*. . . ."

Also from **Dave Donnelly's** column: "A patient told **George Ewing** the following apocryphal story: "My uncle bought my aunt a cemetery plot for one Christmas and the following year didn't give her anything. . . . 'How come?' she asked. 'Well,' he told her, 'you didn't use the present I gave you last year.'"

Several Honolulu psychiatrists were queried on Hawaii's mental health. One fellow blamed the prolonged Kona weather and said, "I don't have scientific evidence to back this up, but it seems so many of my patients are doing so much worse during this period. . . . People in Hawaii take the sunshine and good weather for granted. Hence, when foul weather reigns and disturbs swimming and other outdoor routines, it becomes terribly heavy."

Another felt that biophysical factors, including the phases of the moon, may well turn out to be emotionally influential. Still another psychiatrist felt that the gas shortage helps people get their minds off their personal problems. "For many, it's a good distraction to run around searching for gas."

Kaiser Medical Center's **Stephen Ugelow** was honored by **Mayor Fasi** with a "Good Guy Award" for the part he played in resuscitating a Lawrence Stenek who was shocked near death by an electric sander at Ala Wai Boat Harbor. . . .

State epidemiologist **Ned Wiebenga** estimates that the polio immunity level for Hawaii youngsters is around 60% which is very marginal protection. Ned feels that the community can be assured of protection only if 90 to 95% immunity levels can be attained. **Ira Hirschy** warned that 20 to 40 cases of polio are reported weekly in Manila and that the virus can be easily imported here with arriving families. With these pronouncements, the Health Department launched a crash school clinic program in January for 34 public schools in the Windward and north central districts with medical teams giving both oral polio and measles shots. . . .

Wilcox Hospital on Kauai was one of the first in the State to approve the limited use of acupuncture. **Peter Kim, W. D. McLaughlin** and **Joan Takeuchi** had taken courses in acupuncture sponsored by the American Institute of Hypnosis. W.D. commented: "Acupuncture is certainly not a panacea of man's illness, but like so many other drugs and modalities it certainly has its place in the armamentarium of the practicing physician. Much research is needed to scientifically explore this vast and complex modality."

## Ribald Jokes

(Attributed to Myer Symonds)

One father paced the room adjoining the St. Francis Hospital Waiting Room while another sat calmly. "This

is my first child," explained the nervous father. "This is my 6th," explained the calm knowledgeable one. "Could I ask you something?" "Shoot!" "How soon after the baby comes can we have sex?" "Well, that all depends." "Depends on what?" "Whether your wife is in a ward or a private room," explained the calm father. (Heard by **Irene Wong** at the Chinese Chamber of Commerce meeting).

The Queen of England made a royal tour of the Brewery Hospital's Wing for Unwed Mothers. At the outpatient ward, she graciously spoke with mothers waiting in line. "When are you expecting?" she asked the first. "October 1st, your Highness," was the reply. The Queen turned to the next gal and asked the same question. Again the reply was, "October 1st, your highness." She was intrigued by the strange phenomena and she went down the line of expectant mothers and each gave the same answer. When she came to the last expectant mother, the Queen said, "I suppose you are also expecting on October 1st?" "No, your Highness. I missed the annual brewery party." (Also heard by **Irene Wong**).

"You know why the Jews are the most trusting people in the world? Because they let the rabbi cut off a 1/2 inch before they even know how long they will grow." (Heard by **Tom Frissel**).

## Fuel and Emotional Crises

Exec secretary **Tom Thorson** and staff had worked furiously for days to get special gas allowances for physicians. He had talked to the Lt. Governor, the energy chief, the head of the Consumer's Bureau and finally individual gas stations. Five sympathetic gas station owners finally agreed to allow emergency fuel to physicians, so Tom promptly sent out notices and started a slow burn when one physician commented sarcastically, "Well, its about time you did something." The Physician's Exchange reported that over 50 calls were received one weekend asking for substitute doctors from patients who could not see their regular doctors because of the fuel shortage. The Exchange also reported that six physicians had to take cabs to the hospitals that same weekend. Mayor Fasi had proposed that physicians be allowed the use of city pumps, which was promptly rejected by his potential gubernatorial opponent, Lt. Gov. Ariyoshi. . . .

Well, we too were assigned an emergency gas station by the HCMS office. But we did not anticipate any emergency since our regular station had been providing us with full tanks. . . . Then, alas! One fateful end-of-the-month morning, our faithful station ran out and our gas gauge registered near empty. Aha! Luckily we had this emergency assignment. . . . We drove down to the Chevron Station at the corner of Beretania and Kalakaua and apologetically explained our predicament. The manager, a bellicose paranoid, undoubtedly a victim of many hours of verbal abuse, blurted, "Yeah, I know you doctors need gas for emergencies. . . . I'll give you some, but from now on, bring all your servicing and repairs to us. . . . Understand!" We fortunately recalled all the trouble Tom Thorson had gone through to hustle these arrangements and we ate humble pie. We quietly thanked him while stifling a heated retort and drove off sans the needed gas. . . .

## Tom Thorson's Corner

What happens when you cross an elephant with a prostitute? You got a 500-lb. peanut eater that remembers everything.

The surgeon while dutifully making his rounds stopped to check on a young patient on her first postop day.

*continued page 108*



# the Air Cushion

helps extend the interval between attacks of asthma—alleviates the symptoms of chronic bronchitis

**Isuprel® Compound Elixir** combines Isuprel, ephedrine, and theophylline for bronchodilation—each in small quantity to lessen the chance of side effects.

Contains potassium iodide, usually effective in converting dry, wheezing cough associated with chronic bronchitis into productive expectoration.

Contains Luminal® for mild sedation, to help lessen the anxiety of patients short of breath; provides a degree of antagonism to the possible adverse effects of adrenergic ingredients.

**Indications:** The Elixir is indicated for the management of patients with bronchial asthma, allergic coughs, and the chronic bronchitis frequently associated with these respiratory disorders.

**Warnings:** Phenobarbital may be habit forming.

**Precautions:** The dosage must be carefully adjusted in patients with hyperthyroidism, acute coronary disease, cardiac asthma, hypertension, and limited cardiac reserve and in patients sensitive to sympathomimetic amines, since overdosage may result in tachycardia, palpitation, nausea, headache, or other epinephrine-like side effects. Caution is also recommended in patients with prostatic hypertrophy and glaucoma.

The Elixir should not be given to patients with known sensitivity to iodides. Because of its iodide content, the Elixir may cause elevation of the protein-bound iodine. Large doses of iodides should not be administered during pregnancy since they may cause goiter in the fetus.

**Adverse Reactions:** Although the Elixir is generally well tolerated, symptoms of adrenergic overstimulation such as tachycardia or nervousness may occur, in which case the preparation should be temporarily discontinued and administered later at a lower dosage. Reactions to iodide include coryza, fever, acneiform eruptions, erythema of the face and chest, and painful swelling of the salivary glands. These side effects quickly subside on discontinuance of medication. Theophylline may cause gastric intolerance (nausea and vomiting).

**Dosage and Administration:** For children from 1 to 3 years, 1 or 2 teaspoons (5 to 10 ml.); from 3 to 6 years, 2 or 3 teaspoons (10 to 15 ml.); from 6 to 12 years, 1 or 2 tablespoons (15 to 30 ml.). The dose should be administered three times daily as needed to control symptoms.

For adults, 2 tablespoons (30 ml.) three or four times daily may be given as needed. Since the severity of the disorder and the response of the patient will vary, the dose should be adjusted to individual needs, the larger doses being reserved for more severe disorders or for patients who do not respond to the smaller doses. Acute or severe attacks of bronchial asthma usually require inhalation and other therapy.

**How Supplied:** Bottles of 16 fl. oz. and 1 gal.

Winthrop Laboratories, New York, N.Y. 10016 **Winthrop**

## Isuprel<sup>®</sup> Brand of isoproterenol Compound Elixir

Each tablespoon (15 ml.) contains:  
Luminal® (brand of phenobarbital, USP) . . . 6 mg.  
Warning: May be habit forming  
Isuprel hydrochloride (brand of isoproterenol hydrochloride, USP) . . . . . 2.5 mg.

Ephedrine sulfate, USP . . . 12 mg.  
Theophylline, USP . . . . . 45 mg.  
Potassium iodide, USP . . 150 mg.  
Alcohol, USP . . . . . 19%  
Vanilla flavored, pleasant tasting



473 ml. (1 pint)  
**Isuprel®**  
brand of  
isoproterenol  
**COMPOUND**  
**Elixir**  
S290EF

6 mg.  
15 mg.  
12 mg.  
15 mg.  
50 mg.  
19%

**Winthrop**



**NEW**  
pediatric dosage form  
of an established  
G.U. specific with 8 years'  
clinical experience

# With a tomorrows i



# her mind...

Today, prescribe a proven oral agent with bactericidal action against Escherichia coli, Klebsiella, Aerobacter, and Proteus.

If uncontrolled "today," the bacterial insult of childhood urinary tract infections may mean major renal injury for the adult "tomorrow." That's why early, aggressive antibacterial therapy is important.

Now control can often be maintained with a new pediatric dosage form of a G.U. specific that is highly effective against the gram-negative spectrum.\* NegGram Suspension is bactericidal over the entire urinary pH range against *E. coli*, *Klebsiella*, *Aerobacter*, and *Proteus*, including *P. mirabilis*, *P. morganii*, *P. vulgaris*, and *P. rettgeri*. Disc susceptibility testing is recommended.

In addition, NegGram Suspension offers these important clinical advantages: fast symptomatic relief

- rapid onset of action • no crystalluria or fungal overgrowth reported to date in clinical reports and animal studies • no need to adjust acidity • low incidence of allergic or other side effects† • good correlation between *in vitro* and *in vivo* response†† • no cross resistance has been reported with other antibacterials.

And for the young patient, NegGram Suspension is easy-to-take because of its delicious raspberry flavor.

\*Not effective against *Pseudomonas*.

†See discussion of Adverse Reactions.

††Harrison, L. H. and Cox, C. E.: Bacteriologic and pharmacodynamic aspects of nalidixic acid, *J. Urol.* 104:908, Dec. 1970.

Introducing  
**NegGram**<sup>®</sup> brand of  
nalidixic acid, NF  
**Suspension**  
for childhood urinary tract infection

**Winthrop** Winthrop Laboratories, New York, N.Y. 10016 (1593M)

**NegGram<sup>®</sup> brand of nalidixic acid, NF**

**Caplets<sup>®</sup> and Suspension**

**Brief Summary**

**Indications:** NegGram is indicated for the treatment of urinary tract infections caused by susceptible gram-negative microorganisms, including the majority of *Proteus* strains, *Klebsiella-Aerobacter* (or *Enterobacter*), and *E. coli*. Disc susceptibility testing with the 30 mcg. disc should be performed prior to administration of the drug, and during treatment if clinical response warrants.

**Contraindications:** NegGram is contraindicated in patients with known hypersensitivity to nalidixic acid and in patients with a history of convulsive disorder diseases.

**Warnings:** CNS effects including brief convulsions, increased intracranial pressure, and toxic psychosis have been reported rarely. These have occurred in infants and children or in geriatric patients, usually from overdosage or in patients with predisposing factors. If these reactions occur, NegGram should be discontinued and appropriate measures should be instituted. (See Adverse Reactions and Overdosage.)

**Usage in Pregnancy:** Safe use of NegGram during the first trimester of pregnancy has not been established. However, the drug has been used during the last two trimesters without producing apparent ill effects in mother or child.

**Precautions:** Blood counts and renal and liver function tests should be performed periodically if treatment is continued for more than two weeks. NegGram should be used with caution in patients with liver disease, severely impaired kidney function, epilepsy, or severe cerebral arteriosclerosis.

Patients should be cautioned to avoid undue exposure to direct sunlight while receiving NegGram. Therapy should be discontinued if photosensitivity occurs.

Bacteria resistant to NegGram may emerge rapidly, sometimes within 48 hours of treatment. Therefore, cultures and bacterial sensitivity tests should be repeated if the clinical response is unsatisfactory or if a relapse occurs.

Nalidixic acid may enhance the effects of oral anticoagulants, warfarin or bishydroxycoumarin, by displacing significant amounts from serum albumin binding sites.

When Benedict's or Fehling's solutions or Clinitest<sup>®</sup> Reagent Tablets are used to test the urine of patients taking NegGram, a false-positive reaction for glucose may be obtained, due to the liberation of glucuronic acid from the metabolites excreted. However, a colorimetric test for glucose based on an enzyme reaction (e.g., with Clinitix<sup>®</sup> Reagent Strips or Tes-Tape<sup>®</sup>) does not give a false-positive reaction to the liberated glucuronic acid.

Incorrect values may be obtained for urinary 17-keto and ketogenic steroids in patients receiving NegGram, because of an interaction between the drug and the *m*-dinitrobenzene used in the usual assay method. In such cases, the Porter-Silber test for 17-hydroxycorticoids may be used.

**Adverse Reactions:** Reactions reported after oral administration of NegGram include *CNS effects*: drowsiness, weakness, headache, and dizziness and vertigo. Reversible subjective visual disturbances without objective findings have occurred infrequently (generally with each dose during the first few days of treatment). These reactions include overbrightness of lights, change in color perception, difficulty in focusing, decrease in visual acuity, and double vision. They usually disappeared promptly when dosage was reduced or therapy was discontinued. Toxic psychosis or brief convulsions have been reported rarely, usually following excessive doses. In general, the convulsions have occurred in patients with predisposing factors such as epilepsy or cerebral arteriosclerosis. In infants and children receiving therapeutic doses of NegGram, increased intracranial pressure with bulging anterior fontanel, papilledema, and headache has occasionally been observed. A few cases of 6th cranial nerve palsy have been reported. Although the mechanisms of these reactions are unknown, the signs and symptoms usually disappeared rapidly with no sequelae when treatment was discontinued. *Gastrointestinal*: abdominal pain, nausea, vomiting, and diarrhea. *Allergic*: rash, pruritus, urticaria, angioedema, eosinophilia, joint stiffness, and rarely, anaphylactoid reaction. Photosensitivity reactions, primarily involving exposed skin surfaces, have disappeared after therapy was discontinued. *Other*: rarely, cholestasis, paresthesia, metabolic acidosis, thrombocytopenia, leukopenia, or hemolytic anemia which in some patients may have been associated with a deficiency in activity of glucose-6-phosphate dehydrogenase.

**Dosage and Administration:** *Adults.* The recommended dosage for initial therapy in adults is 1 g. administered four times daily for one or two weeks (total daily dose, 4 g.). For prolonged therapy, the total daily dose may be reduced to 2 g. after the initial treatment period.

*Children.* Until further experience is gained, NegGram should not be administered to infants younger than three months. Dosage in children 12 years of age and under should be calculated on the basis of body weight. The recommended total daily dosage for initial therapy is 25 mg./lb./day (55 mg./kg./day), administered in four equally divided doses. For prolonged therapy, the total daily dose may be reduced to 15 mg./lb./day (33 mg./kg./day). NegGram Suspension or NegGram Caplets of 250 mg. may be used. One 250 mg. Caplet is equivalent to one teaspoon (5 mL.) of the Suspension.

**Overdosage: Manifestations.** Toxic psychosis, convulsions, increased intracranial pressure, or metabolic acidosis may occur in patients taking more than the recommended dosage. Vomiting, nausea, and lethargy may also occur following overdosage. **Treatment.** Reactions are short lived (two to three hours) because the drug is rapidly excreted. If overdosage is noted early, gastric lavage is indicated. If absorption has occurred, increased fluid administration is advisable and supportive measures such as oxygen and means of artificial respiration should be available. Although anticonvulsant therapy has not been used in the few instances of overdosage reported, it may be indicated in a severe case.

**How Supplied:** Suspension (250 mg./5 mL. tsp.), raspberry flavored, bottles of 4 fluidounces and 1 pint.

Caplets of 250 mg., scored, bottles of 56 and 1000.

Caplets of 500 mg., scored, bottles of 56, 500, and 1000.



The young lady asked diffidently how soon could she resume her sex life. The otorhinolaryngologist was stunned. When he regained his composure, he explained, "I really haven't thought about it. . . . You see, you're the first patient ever to ask me this question after a T & A."

## Thoughts . . .

William Osler: "The greater the ignorance, the greater the dogmatism."

William Mayo: "It is worthwhile to secure the happiness of the patient as well as to prolong his life."

## Claude Caver's Wit

A tattered, weary, Confederate cavalry troop, short on supplies had sortied deep into enemy territory. It captured a Union supply train loaded with blue Union army uniforms instead of the needed food supplies. The troopers could use new uniforms too, if only the color was right. They consulted a local chemist who tried everything he knew, but the color held fast. He finally recommended that the troopers wear the uniforms anyway and sure enough, with time and the exposure to sweat and sun, the blue faded into gray. . . . Which all goes to show that "Old dyes never fade. . . . They just soldier away. . . ."

## Professional Moves

For some inexplicable reason, we missed the following batch of September announcements: Surgeon **Frank Ferren** joined the Kona Medical Association, psychiatrist **Eugene S. Kostink** opened at the Control Data Bldg., 2828 Paa St. and pediatrician **Stephen Tenby** opened at the Kahala Office Center. On Maui, otorhinolaryngologist **Andrew Don** joined the Maui Medical Group and in Hilo Pediatrician **Ben I. Hur** (Originally from Korea) associated with Hoon Park at the Park-Hur Medical Clinic.

In late December, neurosurgeon **Raymond Taniguchi** relocated to 1507 So. King and **Lorne Phillips** associated with **Alfred Burden** at the Maui Clinic.

Exit the Year of the Tiger, a year of flux. . . . Enter the Year of the Ox, hopefully a year of stability. . . . In January, oncologist **John Keenan** and dermatologist **Fredrick Maag** joined the Fronk Clinic at 389 So. Bere-tania and radiologist **Donald Nickon** joined the Hawaii Permanente Medical Group. On Maui, ophthalmologist **Russell T. Stodd** opened at 30 Kamehameha Avenue, Kahului and in Hilo, **Desmond Wong** opened at 102 Kinoole Street.

In February, ObGyn man **Thomas Ternya** opened at 2525 So. King St., **Frank Ceecearelli** opened at Suite 602 Kailua Professional Bldg., and pathologist **James Donald Gallup** joined the Honolulu Medical Group. On Hawaii, GP **Paul Geiger** opened in Honomu, Hawaii (next to Ishigo Store).

## Miscellany

One of the Popes passed on and arrived at Heaven's pearly gates. He was chagrined to find that he had to wait in line with the common folk. . . . He impatiently went up to St. Peter and demanded, "See here! Do you know I am a Pope?" Just then, someone in a white jacket and a stethoscope around his neck ignored the long waiting line, walked right through the gates and St. Peter admitted him without a question. The Pope was curious. "Who was that?" St. Peter replied, "That's God playing doctor." (A **Larry Wong** original).

During WW II, Sgt. Paraz was the faithful orderly for General Cachero through thick and thin from Normandy to Berlin. When the fighting was over, the grateful

general wished to reward the sergeant for his many years of faithful service, and so asked him to come work for him as a civilian. The sergeant readily accepted the kind offer. The first day home, the sergeant had not forgotten his routine. He was up at the crack of dawn, marched straightaway into the general's bedroom where the general and the missus were sound asleep. He gave her a resounding whack on her buttocks and ordered, "Get up honey! You better get back to the village before the others arrive." (Another **Bill Dang** original).

## AETNA Medicare Review Meeting (At La Mancha)

We sorely missed some of our former gourmet stalwarts like Chairman **Gabe Ma**, **Ted Tseu**, **Nial Scully**, **Vic Hay Roe**, **Gordon Liu**, **Lup Pang** and **Allan Young**. **Bill Dang** was back at the helm and plastic man **John Penoff** was a new member. The meeting got off to a fast start with **Jerry Faulkner** asking: "What flies with a crooked Dick?" We professed ignorance and Jerry snickered: "Air Force One."

Just then, **Bernie Fong** sauntered in and asked us if we had heard this one: "Jesus entered Nazareth and came upon a crowd stoning Mary Magdelin. He sayeth: 'Let he who is without sin cast the first stone.' The crowd quickly dissipated . . . except for one old gal who grabbed a large rock and promptly stoned Mary tot. . . . Jesus scolded, 'Mother! You do such awful things!'"

Bernie had as usual several difficult cases to "adjudicate." A 75-year-old lady with chronic rheumatoid arthritis received weekly injections of a special import Staph-Strep vaccine. Medicare frowns upon weekly injections, besides the vaccine was a foreign import and not on the US. *Pharmacopeia*. The injections were disallowed but the office visits allowed. Another case involved a 95-year-old gentleman with lung cancer who was seen daily by both the attending and the consultant over a 3-month period while the patient survived myriad complications including a stroke, and bouts of heart failure, GI bleeding, and pneumonia before recovering enough to be discharged. Bernie had done a hospital chart review and again carefully "adjudicated" the case. He explained at length that Doctor A the admitting physician wrote all the orders, but did not write any progress notes while Doctor B wrote hardly any orders, but wrote meticulous progress notes twice daily. In the confusion of Doctors A and B, we plumb forgot who was paid for what, but the adjudication was fair. Bernie's exhaustive efforts did not go unrecognized. The committee, on Chairman **Bill Dang**'s recommendation, voted unanimously to confer *Doctor Emeritus* honor upon Bernie. Since the reviewing officer may ask for a stipend for the time involved in reviewing hospital charts, Jerry facetiously suggested, "Now we should review Bernard's charges for reviewing the chart."

## Sportsmen

MidPac Thursday Club: **Mike Okihiro** won the 1973 President's Trophy with **Arturo Salecido** coming in a close 2nd. On Nov. 7, **Masaru Koike** pitched in an eagle on the 16th hole using an 8th iron. **Garth Morimoto** (of "Garth Dammit" fame) garnered the September trophy. **Ed Izawa** who won the 1973 Classic was only too happy to relinquish the perpetual trophy to Mike. (It seems that **Clara Izawa** was having trouble keeping the monstrosity clean. . . . Wives sometimes fail to appreciate the joys of keeping a perpetual trophy for the year).

### Hawaii Pathologists Association Invitational Golf Tournament

The pathologists' annual tournament was run by **Jim Navin** with **Tom Kobara** assisting. The tournament was

rained out on Nov. 30 and rescheduled for Jan. 11 on a still rain drenched Hickam AFB course. **Francis Soon** who had overcome his "Ball Fixation Syndrome" of a year ago shot a sparkling 101-25-66 to win first place. In 2nd place was **Al "Tiger" Paraz** with a net 69 and 3rd place **Henry Fong** with a net 71. **Bill Dang**, our perennial winner, was in 4th with a net 72. Ardent neophyte golfer **Seisho Ogawa** led the non-handicappers with a net 65. . . .

## Miscellany

A gal came home from her bridge tournament, ecstatic with happiness. "Honey! Look what I won. . . . A magic mirror!" The husband looked at the mirror skeptically and pooh-poohed the notion of its magic qualities. She promptly hung the mirror on the bathroom wall, removed her bra and whispered fervently, "Mirror, mirror on the wall. . . . Make my busts the largest of all." Snap, crackle, pop! Her breasts grew twice their size. "See honey! It works!" she shouted happily. Hubby quickly removed his duds and demanded, "Mirror, mirror on the wall, make mine reach the floor." Snap, crackle, pop! Presto! He found himself with 3 inch legs. . . . (**Tom Leineweber**).

Three wives were bragging about their husbands. "My husband has the most gorgeous dragon tatooed on his left shoulder," announced Mable. "That's nothing, mine has dragons tatooed on both shoulders," declared Suzie. June, not to be outdone, bragged, "Hell! My husband's got his draggin on the floor. . . ." (A **Bill Dang** original).

## Conference Humor

**Namiko Kominami** lectured one Friday morning at Queen's on Inappropriate ADH Syndromes. When she reached the podium, she apologized, "I'm sorry, but I forgot my slides. . . . Those who are anti-feminists would be happy. . . . You see, I changed my purse." With this introduction, she proceeded to scribble an excellent lecture using the black board. During the ensuing question and answer session, **Namiko** saw **Bill Sage** raise his hand, for a question, or so she thought. "Dr. Sage?" **Bill** hastily explained, "No, I was just scratching my head."

## Oncology Conference

An 88-year-old man with asymptomatic metastatic Ca of unknown origin proven only by Rt supraclavicular node biopsy had his lungs and extrapleural areas radiated in 1971. On a recent admission, repeat IVP's showed a Lt renal tumor and the patient did well after surgical exploration, Lt nephrectomy and splenectomy. Explaining his role, radiotherapist **Ed Quinlan** complained, "Radiotherapists are the eternal fall guys. . . . We radiated him, but I don't know why. . . . Guess someone felt we should. . . ." Pathologist **Grant Stemmerman** was philosophical, "This is a classic example of how remarkably well patients do when left alone. . . ."

A 49-year-old man with lymphocytic lymphosarcoma of his neck nodes had radiotherapy followed by chemotherapy 3-years ago. He was readmitted with both UGI and IVP showing tumor. Radiologist **Don Ikeda** reviewing the UGI was enthralled: "Its a sort of spectacular UGI. . . . Sort of a bull's eye defect. . . . Note the defect here . . . and here . . . multiple defects. . . . This is compatible with diffuse lymphosarcoma of the stomach." **Grant Stemmerman** explained, "Its a condition called pseudolymphoma and has a central ulceration. . . . There is no way to distinguish lymphoma and pseudolymphoma. . . ." Moderator **Noboru Oishi** explained, "We gave 5 courses of COP." **Ed Quinlan** commented, "I think he needs total abdominal radiation. He's been so responsive to radiation in the past. I should have radiated

the Waldeyer's ring as well. . . ." **Noboru** turned to oncologist **Jack Keenan**. . . . "Jack?" **Jack** remarked, "Have you considered COPP or COAP?" Try COAP before radiotherapy. Radiotherapist **Carl Boyer** interceded: "I don't want to give you a chance to talk. . . . You may come up with a good idea. The patient has just finished COP. . . . What do you mean try COAP? He has responded so well to radiotherapy. . . ." **Jack** insisted, "I still think chemotherapy first, then radiotherapy. If it doesn't work, then you fellows can burn the hell out of him." Moderator **Noboru Oishi** suggested, "We'll flip a coin." **Ed Quinlan** said, "I hope the coin is loaded." **Stemmy** was curious, "What are you going to do after you flip?" **Ed**: "Treat and keep quiet." **Jack** got in the last word: "I insist on a follow-up."

A 54-year-old heavy smoking man with a gastric lesion, a Lt main stem bronchus lesion and pleural effusion had a Class V smear reported by the pathologist. One of the pressing problems was what to do with a Class V smear. **Noboru Oishi** turned to **Carl Boyer**. . . . **Carl** was quite explicit: "You have to know your pathologist. . . . If **Straub**, 'Yes,' but if **Queen's**, 'No.' If have seen **Jim Navin** (of **Straub**) even diagnose a Hodgkin's from a sputum smear." **Grant Stemmerman** defended the Kuakini report: "I have every confidence that the diagnosis is correct." **Noboru** complained, "But there is metastasis to the pleura. . . . You don't say that. . . ." **Stemmy**: "So you have to read the description. . . ."

The patient had a suspicious tomogram, a negative bronchogram, and a negative blind biopsy on bronchoscopy. . . . **Ed Quinlan** ad libbed, "In other words, the Xray Dept. has not been much help." **Noboru** confused the issue further by reporting: "Gastroscopy showed a gastric lesion, but the biopsy of the lesion was negative. The alkaline phosphatase is elevated. . . . The question is whether to explore or not." **Stemmy** restated the issue: "The main problem is that we have a tumor, but we do not know where the primary site is." Radiotherapist **Ed Quinlan** who had been reviewing the UGI films with the gastric lesion quipped, "If the bonafide radiologist cannot tell whether the lesion is benign or malignant, how can we layfolk decide." Pleural disease is metastatic disease. . . . So treating the pleural disease will not affect the primary. . . . Thus the discussion went on *ad infinitum*. . . .

## Miscellany

**Oral Roberts** called to his TV viewing audience, "If you have any ailments, let me cure them. . . . Just place your right hand on the TV set and your left hand on the ailing part and pray with me." Grandpa promptly placed his left hand on his private and his right hand on the set. Grandma scolded, "Oral Roberts sez he can cure ailments. . . . He didn't say he could raise the dead." (CCU Nurse, **Nabalta**).

Three housewives were comparing notes on what they gave the City and County trash truck crew for Christmas. The Japanese housewife said she gave them sushi, and the Chinese housewife had given them manapua. . . . The Pollack housewife said, "I took each of them to bed with me." The other two were aghast. . . . "Why?" "Well, when I asked my husband what I should give them, he said 'F..... em!'" (Heard by **Frank Fuku-naga**).

"Show us a clean newspaper and we can show you a parakeet with a problem" (**Aku**).

## Announcements

### AMERICAN COLLEGE OF PHYSICIANS 55th ANNUAL MEETING

The 55th Annual Session of the American College of Physicians (ACP) will be held in New York City April 1-4, 1974, with scientific sessions at the New York Hilton and Americana hotels.



Theme of the 1974 Annual Session will be "Humoral and Chemical Mediators in Human Biological Systems." Out of 480 abstracts of scientific papers submitted for consideration by the Annual Session Program Committee, 78 have been selected for presentation. They will be grouped under the topic headings of allergy and immunology; endocrinology and metabolism; gastroenterology; heart; circulation; hematology; infectious diseases; kidney, electrolytes and hypertension; neurology; oncology; psychiatry; pulmonary diseases; rheumatology; nutrition and delivery of health care.

#### UNIVERSITY OF HAWAII SCHOOL OF NURSING CONFERENCE

The University of Hawaii School of Nursing Continuing Education announces the convening of "An Adventure in Transcultural Communication," June 17-21, 1974.

Madeleine Leininger, R.N., Ph.D., keynote speaker, and members of the Professional Interdisciplinary Transcultural Community in Hawaii will participate in helping you to explore and experience:

The Cultural Interface, Ethnic Variations in the Phenomenology of Emotions, Family Interaction Patterns, Sexual Life Styles, New Roles for Health Professionals, and Leadership and Consultation Styles.

For further details and application form, contact:

Continuing Education Coordinator  
University of Hawaii  
School of Nursing  
Webster 301  
2528 The Mall  
Honolulu, Hawaii 96822

#### VII WORLD CONGRESS OF CARDIOLOGY

The VII World Congress of Cardiology will be held in Buenos Aires, Argentine Republic, from September 1st to the 7th. The Buenos Aires Sheraton Hotel will be the headquarters of sessions and exhibitions.

For additional information write the Secretary General, Dr. Bernardo Malamud, Avda. Roque S. Peña 1110, 2° piso, Buenos Aires, Argentina. Cables: CENIBAIRES.

#### NEW YORK UNIVERSITY DERMATOPATHOLOGY SYMPOSIUM

A three-day "Dermatopathology" symposium sponsored by the departments of dermatology and pathology of New York University School of Medicine will be held October 7, 8, 9, 1974, in Alumni Hall, New York University Medical Center, 550 First Avenue, Manhattan.

The emphasis in this symposium will be on mechanisms of skin diseases, elucidating concepts about pathological processes, in addition to careful gross and microscopic pathological correlations. For detailed information write the Office of the Recorder, New York University Post-Graduate Medical School, 550 First Avenue, New York, N.Y. 10016.

# NOTICE

## HONOLULU COUNTY MEDICAL SOCIETY MEETING

Hear a Panel Discussion on  
**RECERTIFICATION of DOCTORS**  
with

Senator Mason Altiery, Chairman,  
Committee on Health  
Mrs. Pat Putman, Associate Dean,  
University of Hawaii School of Medicine  
Dr. Mor James McCarthy, Chairman,  
Board of Medical Examiners  
Dr. Hing Hua Chun

**MABEL SMYTH AUDITORIUM**  
**April 2, 1974**  
**7:30 P.M.**

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Large enough to serve you"*



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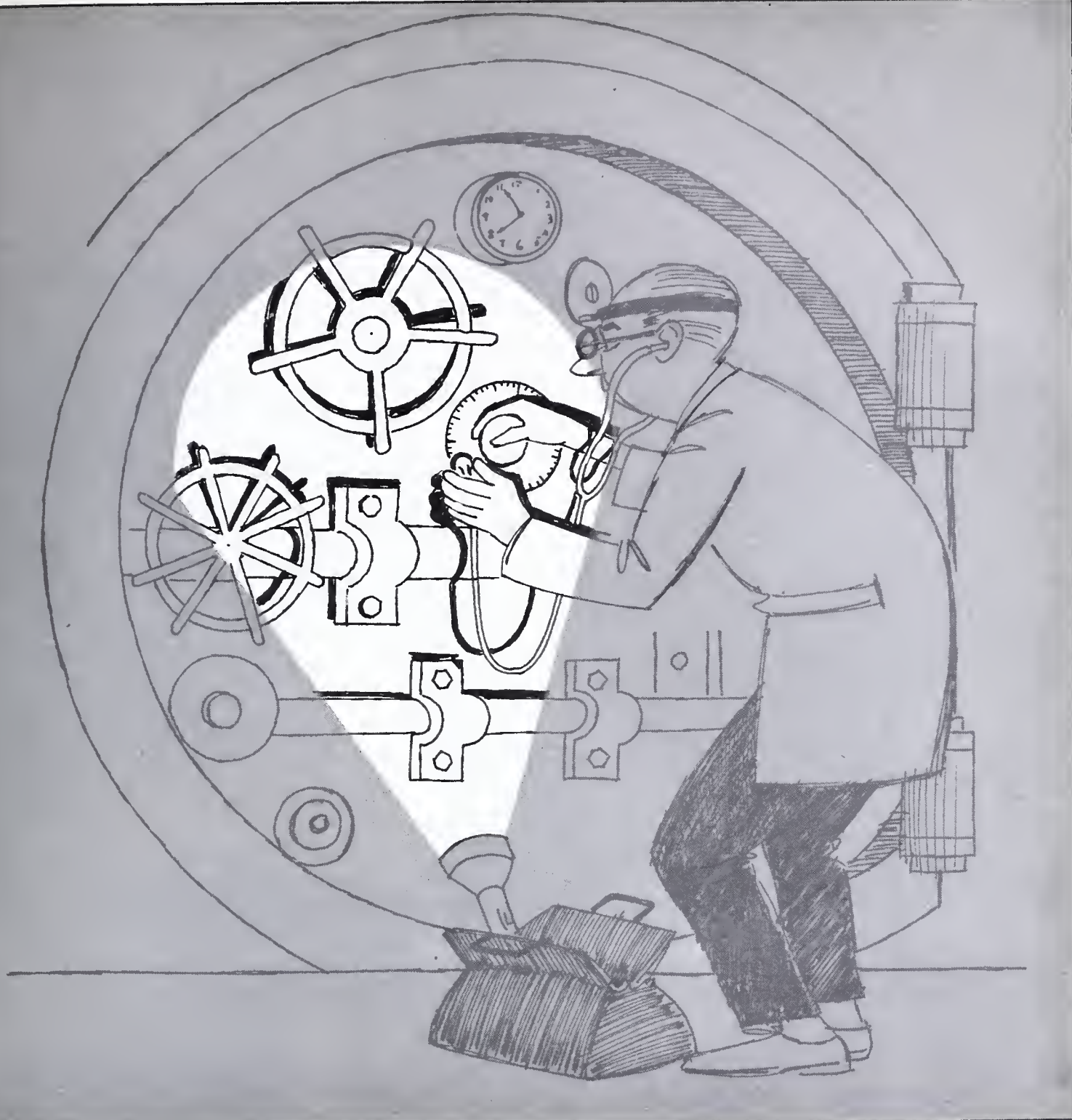
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Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

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**Adverse Reactions:** Drowsiness, excessive dryness of nose, throat or mouth; nervousness; or insomnia. Also, nausea, vomiting, epigastric distress, diarrhea, rash, dizziness, weakness, chest tightness, angina pain, abdominal pain, irritability, palpitation, headache, incoordination, tremor, dysuria, difficulty in urination, thrombocytopenia, leukopenia, convulsions, hypertension, hypotension, anorexia, constipation, visual disturbances, iodine toxicity (acne, parotitis).

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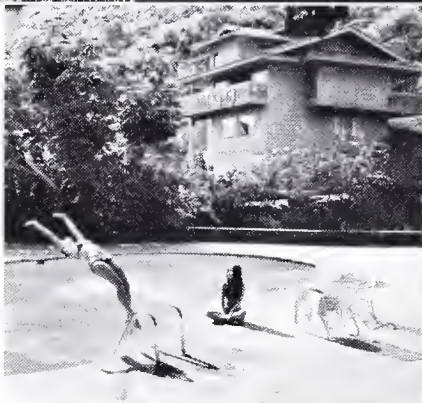
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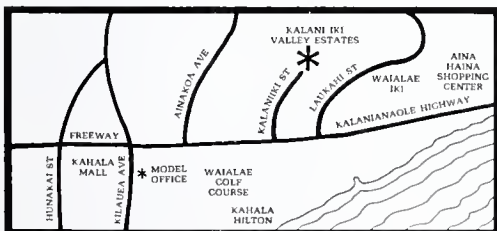
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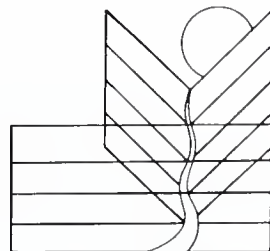
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# ***It's time for action to defend the laws and regulations that protect your patients against drug substitution.***

**These professional and trade organizations are united  
in supporting antisubstitution statutes and regulations:**

The American Academy of Dermatology

The Board of Directors of the  
American Academy of Family  
Physicians

The Executive Board of the  
American Academy of Neurology

The Committee on Drugs of the  
American Academy of Pediatrics

The American College of Allergists

The Executive Committee of the  
American College of Obstetricians  
and Gynecologists

The Board of Regents of the  
American College of Physicians

The Board of Trustees of the  
American Dental Association

The Board of Trustees of the  
American Medical Association

The American Psychiatric Association

The Executive Committee of the  
National Association of Retail  
Druggists

The Board of Directors of the  
Pharmaceutical Manufacturers  
Association

The National Wholesale Druggists'  
Association

## Joint Statement on Antisubstitution Laws and Regulations

The purpose of this statement is to affirm the support of the participating organizations for the laws, regulations and professional traditions which prohibit the unauthorized substitution of drug products.

Traditionally, physicians, dentists and pharmacists have worked cooperatively to serve the best interests of patients. Productive cooperation has been achieved through mutual respect as well as a common concern for the ideals of public service. This mutual respect has been reflected, in part, by joint support over the years for the adoption and enforcement of laws and regulations specifically prohibiting unauthorized substitution and encouraging joint discussion and selection of the source of supply of drug products. The basic principles of medical, dental and pharmacy practice are thus utilized and preserved in the interest of patient welfare.

The antisubstitution laws have not obstructed enhancement of the professional status of pharmacy any more than they have in and of themselves guaranteed absolute protection from unsafe drugs, or freed physicians, dentists and pharmacists from their responsibilities to patients. As a practical matter, however, such laws and regulations encourage interprofessional communications regarding drug product selection and assure each profession the opportunity to exercise fully its expertise in drug usage, to the advantage of patients.

Physicians and dentists should be urged to increase the frequency and regularity of their contacts with pharmacists in selection of quality drug products, recognizing that

economies to patients can be improved through such communication, taking into account the patients' needs. The pharmacist's knowledge of the chemical characteristics of drugs, their mode of action, toxic properties and other characteristics that assist in making drug selection decisions should be utilized to the fullest extent practicable by physicians and dentists in serving their patients.

Since drug product selection entails knowledge derived from clinical experience, the physician's and dentist's roles in product selection remain primary and do not permit delegation of decisions requiring medical and dental judgments. A broader role in therapy will evolve for pharmacists as improved understanding and cooperation among the professions continue to grow.

There has been no evidence that there are convincing reasons to modify or repeal existing laws and regulations prohibiting the unauthorized substitution of another drug product for the one specified by a prescriber. It is our belief that such laws and regulations merit the joint support of the medical, dental and pharmaceutical professions and the pharmaceutical industry.

Add your opinion to the weight of other professionals and send it to your state assemblyman or legislator.

*Pharmaceutical Manufacturers Association  
1155 Fifteenth Street, N.W., Washington, D. C. 20005*







# The irritations of man's day are often reflected in his gut.

The causes of irritable colon and the diarrheal symptoms that often accompany it can be as diverse as the systemic and emotional irritations man is faced with daily.

Although the mucoid nature of stools and the occurrence of diarrheal episodes coincident with times of emotional stress may be valuable clues to the functional nature of the disorder, irritable colon must often be diagnosed by exclusion. Such diagnostic exploration takes time. Discovery of the nature of any emotional problems may take more. During that time, Lomotil® is an ideal agent for controlling diarrheal symptoms.

Lomotil tablets are small, easy to carry and easy to take. They act promptly and effectively. Secondary effects are relatively infrequent and, once the first force of the diarrhea is controlled, maintenance is frequently effective on as little as one fourth of the initial dosage.

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# HAWAII MEDICAL JOURNAL

VOLUME 33 / NUMBER 4

APRIL 1974



TOPIC OF CANCER  
AARON BORROD

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MAY 21 1974



# What's on your patient's face...

may be more important than his chief complaint

Patient P.T.\* seen on 3/29/67 shows typical lesions of moderately severe keratoses. Note residual scarring on ridge of nose from previous cryosurgical and electrosurgical procedures.



Patient P.T.\* seen on 6/12/67, seven weeks after discontinuation of 5% FU cream. Reaction has subsided. Residual scarring not seen except that due to prior surgery. Inflammation has cleared and face is clear of keratotic lesions.

\*Data on file,  
Hoffmann-La Roche  
Inc., Nutley, N.J



# The lesions on his face are solar/actinic— so-called "senile" keratoses... and they may be premalignant.

## Solar, actinic or senile keratoses

These lesions may be called by several names, but they usually can be identified by the following characteristics. The typical lesion is flat or slightly elevated, of a brownish or reddish color, papular, dry, rough, adherent and sharply defined. They commonly occur as multiple lesions, chiefly on the exposed portions of the skin.

## Sequence of therapy— selectivity of response

After several days of therapy with Efudex® (fluorouracil), erythema may begin to appear in the area of the lesions; this reaction usually reaches its height of unsightliness and discomfort within two weeks, declining after discontinuation of therapy. This reaction occurs in affected areas. Since the response is so predictable, lesions that do not respond should be biopsied.

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Treatment with Efudex provides highly favorable cosmetic results. Incidence of scarring is low. This is particularly important with multiple facial lesions. Efudex should be applied with care near the eyes, nose and mouth.

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**Indications:** Multiple actinic or solar keratoses.

**Contraindications:** Patients with known hypersensitivity to any of its components.

**Warnings:** If occlusive dressing used, may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

**Precautions:** If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

**Adverse Reactions:** Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

**Dosage and Administration:** Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

**How Supplied:** Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)-aminomethane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.

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# This patient's lesions were resolved with

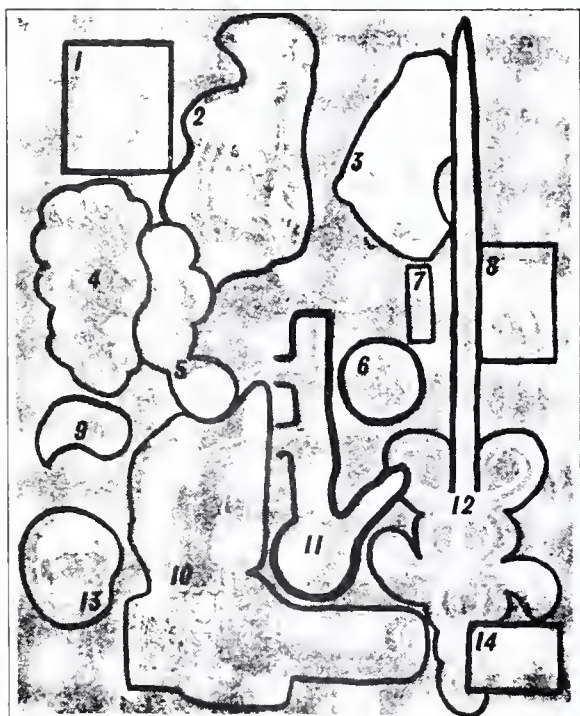
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**Cover:** Aaron Bohrod, artist in residence at the University of Wisconsin since 1948, recently contributed this *trompe l'oeil* (fool the eye) painting titled Topic of Cancer to the American Cancer Society. It represents the full program of the Society, and depicts methods of diagnosis and treatment of cancer. Areas are identified in the keyed diagram.

1. The chimney sweep is of interest historically. In 1775 Percivall Pott described cancer of the scrotum in young chimney sweeps as caused by tars and soot.
2. Cancer of the lung: cigarette smoke curls around the cancer area surrounding the end of the bronchus.
3. Breast self-examination—an example of the ACS education campaign.
4. A model of acetylaminofluorene, a chemical which produces cancer.
5. Cells obtained from body cavities and examined microscopically for cancer; e.g. the Pap test.
6. The Annual National-Divisional Award given to that volunteer in each Division who made a significant contribution during the previous year.
7. Double helix represents DNA, the substance which carries the genetic information of the cell.
8. A patient representing the 1,500,000 persons cured of cancer.
9. The crab—since ancient times one of the symbols for cancer.
10. Three modalities in the treatment of cancer: chemotherapy, surgery and radiotherapy.
11. Flask—representative of lab research.
12. Sword of Hope—official symbol of the ACS.
13. Mouse with tumors of the skin—used in experimental studies.
14. The seven warning signals.



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*Cover: A painting titled Topic of Cancer, see page 124  
for identification and explanation.*



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DESCRIPTION OF ILLNESS	DATE	PATIENT'S
PHYSICIAN'S	DATE	PATIENT'S

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HOSPITAL VISIT	
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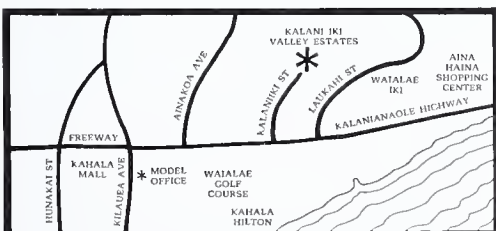
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Spacious homes include three bedrooms, a den, two and a half baths, three lanais, a deck, two car garage and several interior options. Excellent financing, prices from \$115,600 leasehold.

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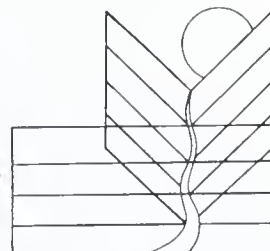
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*Salt water or fresh—treatment course is set by pathophysiology.*

## DROWNING

ROBERT H. MOSER, M.D., *Wailuku\**

ON A brisk Sunday morning, early in 1973, three teaching nuns of the Third Order of St. Francis were exploring the cliffs and beaches near Fleming's Beach on Maui. It was a high surf day, and the waves charged into the sea cliffs in a spectacular show. The youngest, most adventurous Sister, a 29-year-old Filipino teacher, scrambled down the rocky surface to a position about six feet above the sea. Suddenly a giant surge of sea swept in, engulfed her, and carried her out into the rough water of the cove. She struggled, but could not move in the heavy sea. One of the two Sisters on the shore ran screaming for help. The other went into the water for the younger.

To make a dramatic story brief, after an agonizing period—estimated to be about 45 minutes—a valiant young surfer rescued both Sisters. The older was all right, but the younger was cyanotic, unconscious, and not breathing. He pounded her back and began mouth-to-mouth resuscitation. For about five minutes there was no response, but her heart was beating. Then she began to breathe in short, wheezy gasps. About 15 minutes after she had been rescued, an ambulance arrived. She was given 100% oxygen by mask and taken to the hospital.

Her course was characteristic of many cases of salt-water drowning. The problem was massive pulmonary edema—demonstrable by physical examination, chest film and blood gas determinations—without heart failure. Her management consisted of tracheostomy and volume ventilation to combat hypoxia and hypercarbia, while maintaining adequate cardiac output and electrolyte-fluid balance.

She awakened about the third day, was alert, made jokes on paper, but every effort to wean her off the Ohio ventilator was unsuccessful. We attempted slowly decreasing oxygen levels while maintaining volume. At about 40% O<sub>2</sub>, she became cyanotic and dyspneic.

As time went on, it became painfully evident that we were dealing with progressively increasing pulmonary interstitial edema with decreasing compliance. The pressure required to move the gas mixtures was rising each day. Courses of corticosteroids, diuretics, and digoxin were unavailing. She died on the tenth hospital day.

At post mortem she had interstitial pulmonary edema and early fibrosis with evidence of right heart failure. One could debate about how much was due to the inhalation of hypertonic sea water and how much was contributed by several days of volume ventilation with a high-oxygen-concentration gas mixture. We were aware of the urgency to wean her from the ventilator, but we could not. This case is a prototype of many of the 347 persons who died from drowning on Oahu from 1960-1970.

### Reflex Laryngospasm

The sequence of events in drowning can be divided into two parts. The initial insult is a severe asphyxial episode. When water enters the larynx, it initiates a reflex that triggers intense laryngospasm. Thus about 10% of drowning victims die without aspirating water. If the individual is removed from the hostile fluid environment and the laryngospasm controlled or even endured until it subsides, drowning is of course, prevented.

Phase two of the usual sequence consists of actual aspiration of salt or fresh water into ter-

Received for publication May, 1973.

\* New editor of the Journal of the American Medical Association.



minimal airways and alveoli. The clinical situation is predictable if one reflects on the pathophysiology.

Fresh water is hypotonic to blood. It diffuses rapidly through the alveoli into circulation. Within four minutes, blood volume can double. Of course, the cessation of  $O_2$ - $CO_2$  exchange causes acute asphyxia, which usually is far more devastating than the hemodilution-hemolysis-hyponatremia-hyperkalemia sequence, which can initiate fatal ventricular fibrillation. When fresh water is inhaled into lungs, the asphyxia is compounded by atelectasis, with blood shunting around obstructed alveoli. This can result in pulmonary edema—but not as frequently as with salt water inhalation.

In addition, the profound hypoxia is usually complicated by some degree of metabolic acidosis.

### Positive Pressure Breathing

The patient will require positive pressure support with supplemental  $O_2$  for 48 to 72 hours, to provide sufficient time for reconstitution of pulmonary surfactant, which is destroyed when the hypotonic fresh water is swept into contact with alveolar capillary membranes. We know that pressure does not “force” open atelectatic areas—but it does facilitate lateral gas flow from unobstructed alveoli, once surfactant returns. Later, problems of hemolytic anemia, cerebral edema and acute renal shutdown must be anticipated in fresh-water drowning.

Sea water is terribly *hypertonic*—the salt solution is 3.5%, as opposed 0.89% for blood. In addition, it is chemically irritating to the delicate ventilatory bronchioles and alveoli. Thus, we have two causes for pulmonary edema: diapedesis of plasma-rich fluid into alveoli, triggered by (1) the irritation of sea water and (2) sudden juxtaposition of hypertonic salt water to blood, separated only by a highly permeable membrane. Both cause a massive shift of plasma-rich water into interstitial tissue and alveoli, while electrolytes shift into the blood. Serum sodium can rise abruptly to 200 mEq/l (in this patient it was 160). This is associated with marked hypovolemia. Salt-water drowning victims do not develop hemolysis; thus hyperkalemia and ventricular fibrillation are *not* a problem in salt-water drowning.

What we *do* have is a paradox of massive pulmonary edema in the presence of hypovolemia and normal heart size. The problem is the insulted lungs—not the heart. Survival depends on the duration of apnea and hypoxia, and the amount of water inhaled.

### Management

The management of near drowning or actual drowning can be one of the more arduous and

vexing exercises in clinical medicine. Immediate treatment will vary with the severity of the situation. If the patient is breathing and alert, he should still be admitted for at least 24 to 48 hours of observation. It may take that long for acute pulmonary edema or aspiration pneumonitis to emerge clinically.

Of course, if the patient is first encountered at poolside or beach or emergency room—and he is *not* breathing and has no pulse, and you have no way of determining the duration of this state: you must institute emergency resuscitation. This includes immediate establishment of a patent airway, closed-chest cardiac compression, and mouth-to-mouth or ambu-bag ventilation.

In the case of fresh-water drowning, as I said earlier, the combination of acute hyperkalemia and hypoxia can cause rapid onset of ventricular fibrillation. Of course, anoxia-induced metabolic acidosis will coexist. Emergency care consists of 50% glucose IV, liberal administration of sodium bicarbonate, and external cardiac defibrillation. This should be followed by intravenous lidocaine by bolus and then by drip and by rectal K-exylate. By this time, the patient's arterial blood gas report, serum electrolytes, and electrocardiogram will be available (hopefully), and you can assess the magnitude of your clinical problem.

I will not detail the treatment of acute pulmonary edema, which, as I have said, is most common in *salt-water* drowning, and results from hypoxia and plasma-rich-fluid diapedesis. Remember, it is damaged *lungs*, *not* failing *heart*, that is at fault. And the treatment must be directed appropriately.

Let us assume our salt-water victim has survived the first hurdle and has been resuscitated. He is breathing spontaneously and has a viable heart beat. The combination of pulmonary edema and aspiration pneumonitis remains a dire threat. If clinical cyanosis persists and the blood gases reveal hypoxia with  $Pa\ O_2$  well below 50 torr, the patient will require 100% oxygen, most often under pressure. If positive pressure ventilation with Byrd or Bennett will maintain  $Pa\ O_2$  between 60 and 90, this is fine. But many patients will require volume ventilation to overcome the interstitial edema and decreased compliance. The oxygen partial pressure of the gas mixture should be adjusted to the lowest level that will maintain adequate  $Pa\ O_2$ . Usually between 25 and 40% oxygen will suffice.

Positive end expiratory pressure (PEEP) has also been advocated, but I have no first-hand information about this.

The pH and  $Pa\ CO_2$  should be observed for information about coincident metabolic acidosis and rate of ventilation. If the  $Pa\ CO_2$  is over 50,

the rate of ventilation may have to be increased. The pH should be compatible with mild respiratory acidosis due to the hypoventilation.

From here it is a matter of following clinical condition, chest roentgenograms, electrocardiograms, blood gases, and electrolytes at intervals dictated by the status of the patient.

In *fresh-water* drowning, once past immediate resuscitation, one must anticipate a major expansion of blood volume, with possible subsequent acute pulmonary edema, cerebral edema, hyperkalemia and anemia from hemolysis, and possible renal failure from hypoxia and hemoglobinuria. This, also, is a multisystem disorder, often calling for hypertonic glucose, lidocaine defibrillation and bicarbonate. One must also consider the use of phlebotomy, furosemide and mannitol to decrease blood volume, enforce diuresis, and prevent renal shut-down. A CVP line or a Swan-Ganz pulmonary arterial catheter will be of enormous help in following fluid balance in these complex disorders. Faltering consciousness or papilledema calls for IM dexamethasone and mannitol or furosemide, to combat cerebral edema.

Some have used short-course, high-dose corticosteroids to counteract the inflammatory alveolar exudate of aspiration pneumonitis. Others suggest the use of ampicillin, since bacterial pneumonitis may be a problem. Still others suggest furosemide in an effort to "mobilize" interstitial pulmonary edema.

#### **Don't Complicate Matters**

I cannot recommend these medications as pro-

phylactic measures. At this point, the management is sufficiently complex without adding drugs that can cause problems themselves, under the guise of prophylaxis. However, if it seems that volume ventilation with an oxygen-enriched mixture is not able to maintain a Pa O<sub>2</sub> above 60 torr, one may be obliged to try corticosteroids and mannitol. Frank pneumonitis should be treated with ampicillin, until smear and culture of sputum reveal the offending microorganism and its antibiotic sensitivity.

From here on, the name of the game is *caution* trying to wean the patient off the volume ventilator with decreasing oxygen concentrations. Brief 5—15 minute periods off the ventilator with a Venturi mask or nasal prongs, and checking blood gases after these non-assisted ventilation periods, is the only way to do this. Clinical indicators, such as air hunger, cyanosis and dyspnea, should be monitored as well.

If one is successful, chest roentgenograms will show resolution of edema; pulmonary function will improve with rallying of the inspiratory force (a measure of compliance), and there will be progressive improvement in vital capacity.

Most patients who are to survive are better after 24 hours, but almost all require nasal oxygen for a few more days, once they are off the assisted ventilation. Then there are a few, such as our valiant little Sister, who rally temporarily, only to die after 10 days.

As you can see, drowning is a most challenging medical disorder.

*High salt in infancy— high blood pressure later?*

## **Salt In Baby Foods\***

LEH-CHII CHWANG and BLUEBELL R. STANDAL, *Honolulu*

● *An individual's food choice through life is a result of learning in infancy and childhood. The mother's learned acceptance of tastes of foods invariably plays a dominant part in the baby's learning process. When mothers prepare foods or open jars of food for their babies, they may taste*

*that food and judge it as "good" or "not good" and make the decision to use or not to use it for feeding. The adult thus may project her acquired taste on the baby's taste buds, thinking that the baby can taste in the same manner as she does.*

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**T**HAT BABIES do not taste like adults can be inferred from the studies of Fomon and co-



workers<sup>1</sup> who observed the consumption of salted and unsalted strained foods by normal four-month-old and seven-month-old infants. During alternate feeding of the foods, the infants did not reject unsalted foods and the amount of food intake remained the same whether salted or unsalted.

Babies need salt daily for normal growth and development. The requirements for salt have been investigated. Pratt<sup>2</sup> estimated that during the first year of life the baby needs 53 mg of sodium daily. Dahl<sup>3</sup> estimated a daily need of 41 mg of sodium during the first five months of life and 30 mg between five and 12 months of age. Fomon<sup>4</sup> estimated the requirement to be 60 mg Na daily during the first four months of life and 51 mg between four and 12 months of age.

The estimates of needs are much lower than estimates of actual intakes of sodium by babies. Unpublished data of Soifer on food intake of 2,160 six-month-old infants indicated a mean daily intake of 805 mg sodium.<sup>5</sup> Unpublished data of Stewart, who surveyed 369 infants from one to 12 months of age, estimated an average sodium intake of 207 mg daily for one-month-old infants and 1,886 mg for those 12 months old.<sup>5</sup> Puyau and Hampton<sup>6</sup> reported an average daily intake of 414 mg of sodium at one month of age and 1,098 mg at one year. The babies are thus eating ten to twenty times the estimated needs for sodium. Fomon and co-workers<sup>1</sup> reported that during the period when four-month-old babies were eating salted strained foods, their sodium intake was 277 mg from 216 g of food daily, but when they were switched to unsalted strained foods, they consumed only 58 mg of sodium from 202 g of food. The latter value corresponds to estimates of sodium needs.

**Why the Concern About Salt?**

Dietary sodium has been implicated as one of

the factors in essential hypertension. In population studies, high sodium intakes were associated with the prevalence of hypertension among the Japanese in Japan<sup>7, 8</sup> and the Polynesian population of Rarotonga.<sup>9</sup> Zusmanovic<sup>10</sup> reported that among Russian miners, laborers and intellectuals who salted their foods at the table, the incidence of high blood pressure was greater than among those who did not use extra salt. Fatula<sup>11</sup> reported that in a Ukrainian village where the drinking water had a high sodium chloride content, the incidence of hypertension was higher than in a similar village with normal content of sodium chloride in the water.

Animal studies also provide evidence that high Na intakes are related to hypertension. Dahl<sup>12</sup> fed seven weanling rats with regular rat chow and seven other weanling rats with prepared strained meat and vegetable baby food. None of the rats fed rat chow developed hypertension, but five of the seven rats fed the strained baby foods developed high blood pressure. Puyau and Hampton<sup>6</sup> pointed out that the salt intake of the one-year-old infants he studied was comparable to the intake of people in northern Japan where 40 percent of the population was affected by hypertension.

Since it appears that mothers are unwittingly teaching their babies to eat more salt than needed, and since high salt intake is related to high blood pressure, the projection by mothers on their babies of a taste for salt becomes a concern to nutritionists.

**Salt Content of Baby Foods**

In 1970 the National Academy of Sciences recommended to the Food and Drug Administration that the level of salt added to commercially prepared baby foods be restricted to 0.25 percent.<sup>13</sup> Filer estimated that if baby foods contained salt

TABLE 1.—Salt content of commercial baby foods during 1963 and 1972.

BABY FOODS	ADDITION OF SALT TO FOODS BY HEINZ CO. (G/100G FOOD)		SODIUM CONTENT IN FOODS MANUFACTURED BEFORE 1972 (MG/100G FOOD)		SODIUM CONTENT IN 1972 FOODS (MG/100G FOOD)	
	1963	1972	HEINZ (1963)	GERBER (1965)	HEINZ	GERBER
STRAINED FOODS						
Fruit	0.09	0.009	26	25	5	11
Vegetable	0.45	0.25	230	225	95	120
Meat	0.51	0.36	358	204	141	193
High meat dinner	0.83	0.32	466	302	132	149
Dessert	0.27	0.06	146	128	24	87
Fruit juice	0.0	0.0	4	4	3	2
Breakfast	....	0.3	....	97	21	145
Soup	1.3	0.25	406	....	119	....
JUNIOR FOODS						
Fruit	0.1	0.0	26	18	5	17
Vegetable	0.7	0.35	266	226	111	140
Meat	0.49	0.4	389	242	166	197
Chicken and meat sticks	1.9	1.5	750	461	600	447
High meat dinner	0.86	0.32	486	327	143	221
Dinner	1.04	0.3	448	308	120	150
Dessert	0.28	0.08	120	64	27	96

at this level, the sodium intake of babies would be reduced by 27 percent.<sup>5</sup>

In order to find out the adjustments made by the baby foods companies regarding the amount of salt in the foods, food composition data published by the food companies before and after 1970 have been consulted. Average values for salt and sodium contents for each type of baby food have been calculated and are listed in Table 1. With few exceptions, the salt and sodium contents in both Gerber and Heinz baby foods produced in 1972 are lower than those produced in former years. The reduction in the amount of salt added ranged from 10 to 100 percent. The average levels of salt added to Heinz's products in 1972 ranged from 0 to 0.35 percent for both strained and junior foods.

The sodium content of Gerber's foods in 1972, though generally lower than those of 1965, are not as low as the sodium content of Heinz's foods of 1972. The salt content of baby foods manufactured by Beech-Nut were reported by the Consumers Union<sup>14</sup> to be as high as Gerber's baby foods. Thus it appears that Heinz food company has paid closer attention to the recommendation by the National Academy of Science concerning salt addition to baby foods.

In order to find out whether products of lower salt content influence mothers' choices of the foods they buy, a survey of the availability of strained baby foods was made in four major supermarkets in Honolulu, namely, Holiday Mart, Star, Gem and Safeway. While all the four supermarkets carry Gerber's baby foods, only Safeway carry Heinz's foods also and only limited varieties of

the latter were available. The supermarket managers indicated that the reason for the lack of Heinz's foods in the store was due to the poor sales of Heinz's baby foods. Gerber's strained foods, even though they were more expensive than Heinz's foods, were more in demand by the buyers. It might be inferred that the selection of Gerber's baby foods was influenced by the purchasers' liking for a salty taste.

A panel of ten women was convened to taste two samples of strained chicken which contain either 0.3 or 0.4% salt. The women preferred the taste of the strained chicken containing more salt. Thus, even though the difference in salt content between the strained chicken foods is not very great, 123 compared to 170 mg of sodium in 100 g of food, adults can taste the difference and preferred the saltier food. This is in contrast to observations by Fomon and co-workers that infants ate the same amount of salted and unsalted foods and appeared not to have been concerned by the salt taste.<sup>1</sup>

It is the responsibility of mothers to refrain from adding salt to baby foods and from buying strained and junior foods that are tastier to them because of a saltier taste. It is the responsibility of physicians, nutritionists, dietitians, nurses and other food counsellors to inform mothers that babies (1) do not differentiate between salted and unsalted foods, (2) they can get all the salt they need from unsalted foods, and (3) by imposing the adult taste for salt on the babies the mother is training the baby to grow up with a preference for greater salt intake which may be damaging to future health and well-being.

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*Formerly fatal hemorrhages are now readily prevented...*

## The Prophylactic Use of Vitamin K During Pregnancy and in the Newborn†

WILLIAM B. PATTERSON, M.D.,\* *Wailuku, Maui*

● *The prothrombin content of infant's blood may drop to less than 10% of normal during the first three days of life resulting in dangerous hemorrhage. The prophylactic giving of 5 mg vitamin K1 daily during the last two weeks of pregnancy or 10 mg parenterally four hours before delivery will prevent this fall in prothrombin. Best results are obtained when vitamin K1 is given in divided doses before labor, because infants at greatest risk—those with low Apgar scores—may not absorb vitamin K. Prematures, infants born after traumatic labors—particularly if asphyxia was present, and all infants born to mothers in the high-risk categories are more prone to bleed due to low prothrombin and should receive 1 mg vitamin K1 in addition to any the mother received.*

IN 1929 Professor Henrik Dam<sup>1</sup> of Copenhagen found that baby chicks raised on an artificial diet low in sterols and lipids tended to bleed easily and their blood clotted slowly. He later proved that this bleeding syndrome had resulted from a deficiency of a new vitamin factor which he named "vitamin K". In recognition of his discovery of vitamin K, Dr. Dam was awarded the Nobel Prize in 1943. In 1966, a symposium on "Recent Advances in Research on Vitamin K and Related Quinones" was held in Denmark in honor of Dr. Dam. Twenty-six papers were presented, two of which were by Dr. Dam. These were all published in Vol. 24 of "Vitamins and Hormones."

By 1939 Dr. Dam and many other workers had established that vitamin K was a lipid-soluble quinone. In addition to being found in animals, quinones were also found in biological tissues

devoid of blood components. They were found in plants, protozoa, bacteria, yeasts and molds. It was shown that the quinones play a role in respiratory chain phosphorylation by directly affecting the mitochondrial pathways.<sup>2</sup>

Hemorrhage in vitamin K deficiency was found to be due to a lack of action of prothrombin and other factors that are necessary for normal blood clotting, namely, proconvertin (factor VII), Stuart factor (factor X) and Christmas factor (factor IX). Vitamin K appears to function in enzyme systems responsible for the formation of prothrombin and the other clotting factors. The action is not in the plasma, but occurs in the liver cell. Vitamin K is thought to directly influence the formation of the messenger RNA required as a template for prothrombin synthesis.<sup>3</sup>

### Commercial Vitamin K

After 1939, several commercial preparations of vitamin K and its analogues became available and, at first, almost every bleeding patient was treated with vitamin K. When a deficiency of vitamin K was present, the results were dramatic, but there was no effect upon the bleeding of other patients.

In the adult a deficiency of vitamin K-dependent clotting factors may be caused by a deficient intake, absorption or utilization of vitamin K, and also as a consequence of the action of vitamin K antagonists such as dicumarol. The adult is thought to need less than 1 mg per day and the usual diet contains this amount, especially if green vegetables are eaten. Meat and milk are poor sources of vitamin K. Intestinal bacteria usually produce enough vitamin K, but this source is destroyed with intensive antibiotic therapy.<sup>3</sup>

The naturally occurring forms of vitamin K are fat soluble, and therefore, bile salts apparently

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\* From the Departments of Obstetrics, Maui Memorial Hospital and The Maui Medical Group, Wailuku, Maui, Hawaii.  
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are necessary for their absorption. The coagulation defect of obstructive jaundice is caused by a failure of absorption of vitamin K due to the lack of bile salts in the intestines. The uptake of vitamin K also will be insufficient whenever fat absorption is disturbed by other causes such as pancreatic insufficiency, sprue, dysentery, intestinal fistula, gastric fistula, blind loop syndrome and even colitis.<sup>3</sup>

### Healthy Liver Needed

In the presence of liver disease, the damaged liver cell may not be able to produce prothrombin and the other clotting factors even in the presence of an excess amount of vitamin K. Such a defect is found in hepatitis, cirrhosis and toxic liver damage.

There appears to be competition between dicumarol and vitamin K for action sites in the enzyme systems that form prothrombin and the other clotting factors. Because of this, an excess of one will block out the action of the other.

A deficiency of vitamin K causes a plasma coagulation defect characterized by a diminution of prothrombin and other clotting factors. However, the clotting time as measured in glass and silicone tubes is prolonged only when the clotting factors are reduced to less than 10% of normal. Clinically, a coagulation defect is usually well tolerated without any symptoms, even with one stage prothrombin values between 10 and 20% over long periods.<sup>3</sup>

The clinical symptomatology of vitamin K deficiency is characterized by a general hemorrhagic diathesis of the hemophilia-like bleeding type.<sup>3</sup> There may be hemorrhages after trauma, postoperative and postpartal bleeding, bleeding following tooth extraction; bleeding from the gums, the mucosa and subconjunctiva, hematemesis, melena, hematuria, menometrorrhagia, and cerebral bleeding; and sometimes petechiae are formed. The hemorrhages are usually started by trauma or some other predisposing cause. For instance, high blood pressure may start cerebral bleeding; cough or pressure subconjunctival bleeding; ulcer or cancer may lead to hematemesis and melena, or infections may start a hemorrhagic diathesis if there is a vitamin K deficiency.

### Bleeding in Pregnancy

Vitamin K-sensitive hypoprothrombinemia has been reported to occur in pregnancy leading to a hemorrhagic diathesis.<sup>3</sup> Some of these patients were in early pregnancy and some were in late pregnancy. Some of the patients also had a megaloblastic anemia and thrombocytopenia, but these abnormalities were not influenced by vitamin K therapy.

The frequency of neonatal hemorrhage was reported as 3.2% in one series of 22,561 newborns.<sup>4</sup> Some of these bleeds were due to the trauma of childbirth, including cephalhematomas, but many were associated with coagulation disorders or followed circumcision.

In 1937 it was shown that there was a deficiency of prothrombin in cord blood.<sup>4</sup> Several studies after that demonstrated that vitamin K would cause a rise in this low prothrombin and was effective in treating many cases of hemorrhage in the newborn. Later, detailed studies showed that prothrombin as well as the other vitamin K-dependent clotting factors sometimes declined after birth from values in the safe range of 15 to 50% of the adult to extremely low values during the first three days of life.<sup>4, 5</sup> There was a remarkable variation from one individual to another. Vitamin K therapy would produce a rise in prothrombin and the other clotting factors in a short time and hemorrhages were controlled in 3 to 6 hours. Vitamin K given ante partum to the mother would prevent this postnatal fall of prothrombin in the newborn.<sup>5</sup>

The exact etiology of hypoprothrombinemia of the newborn is unknown. For some reason vitamin K is not transferred across the placenta in sufficient amounts in some patients.<sup>2</sup> Factors in the mother that would effect a normal transfer would be nutrition, toxemia, anemia, infection and antibiotic therapy.<sup>3, 4, 5</sup> Barbiturate therapy in the mother for any cause is usually associated with very low prothrombin levels in the newborn.<sup>5</sup> Prolonged and traumatic labors, particularly if asphyxia is present, apparently increase the need for vitamin K. Prematurity also is usually associated with low prothrombin levels immediately after birth.<sup>4</sup>

When it was learned originally that vitamin K therapy would dramatically cure most of the cases of so-called "bleeders disease of the newborn," there was great elation among obstetricians and pediatricians. I was practicing medicine before vitamin K therapy was available and had seen fatal bleeding in the newborn. Now when I delivered a baby, I could feel more secure that it would not succumb to unexpected hemorrhage.

During the next few years, I had several patients with bleeding disorders in the newborn period. Some of these had massive hemorrhages with bleeding from all the mucous membranes and petechiae in the skin. The prompt administration of vitamin K and blood transfusion would usually stop all the bleeding and the infants would thrive thereafter. I vividly remember one patient who did not survive. The nursery nurse called me at 2 a.m., stating that a newborn had had a large bloody stool and did not look good. Indeed, when



I arrived a few minutes later I found the baby exsanguinated and it died before a transfusion could be given.

In addition to the above massive hemorrhagic diathesis, there were other bleeding manifestations in the newborn. Some of these such as cephalhematoma, subconjunctival hemorrhages and petechiae in the skin of the presenting part were due to trauma and promptly disappeared. An occasional infant born spontaneously to a multiparous mother after an easy labor would develop massive intracranial hemorrhage and die. We know that normal moulding of the fetal head during normal labor may result in minimal hemorrhages in or about the brain. These are found at autopsies on infants dying from other causes. If a minimal hemorrhage due to trauma occurs in the brain of an infant at birth who has an abnormally low prothrombin level in the blood, continued bleeding may result with deleterious effects.

### Bleeding After Circumcision

Bleeding after circumcision of the newborn may occur and even death has been reported from such bleeding. Early in my practice I learned that if I waited until the third day of life to do the circumcision, that postoperative bleeding rarely occurred. If the circumcision was done on the first day of life, it seemed that about one in five would bleed within 12 hours, in spite of good technique. It is now known that the prothrombin has usually risen to a safe level by the third day of life and apparently this is due in part to the action of vitamin K produced by bacteria and absorbed from the infant's intestinal tract. Bacteria invade the infant's intestinal tract within 12 hours after birth, and it is likely they are producing sufficient vitamin K by three days. Milk is known to be low in vitamin K<sup>3, 5</sup> and there is much less in breast milk than in cow's milk.

Considering all the above information about vitamin K and its relationship to coagulation defects, both in the adult and in the newborn, it seemed to me to be much wiser to use vitamin K prophylactically during the latter part of pregnancy, rather than giving it to the infant after birth, and certainly far better than to wait for hemorrhages in the newborn to occur before giving it. This would prevent an occasional maternal hemorrhage due to vitamin K deficiency in the last part of pregnancy. It would also prevent hemorrhages from occurring during or immediately after birth, when the prothrombin level may be abnormally low. If vitamin K is given parenterally after birth, it must first be absorbed and transferred to the liver. Then it takes part in an enzyme system that produces prothrombin and the other clotting factors. It takes two to six hours

for this to occur in experimental animals when vitamin K is given intravenously, and 18 hours for the full effect.<sup>2, 5</sup> If the infant is asphyxiated at birth, due to cord compression or traumatic delivery, or if it has a low Apgar score with meconium-stained amniotic fluid, such as is seen with postmaturity, it very well may be so shocked that it cannot absorb vitamin K and use it to produce prothrombin in the liver.

Because of this reasoning, I began giving all my patients a 5 mg tablet of menadione daily during the last month of pregnancy. Menadione is converted to vitamin K<sub>2</sub> in the body and is effective in treating or preventing vitamin K deficiency.<sup>2</sup> The chemical formula of vitamin K<sub>1</sub> and K<sub>2</sub> differ in one side chain. Menadione does not act as rapidly as vitamin K<sub>1</sub> and should not be used when rapidity of action is desired. Neither does menadione counteract the effects of dicumarol.

### Massive Bleeding Prevented

After starting the prophylactic use of vitamin K in the last month of pregnancy, I never had any more cases of massive hemorrhages in the newborn. This has been for more than 30 years, with the delivery of over 6,000 babies. I could now circumcise the babies on the first day of life and very rarely had any postoperative bleeding. In 1955, large doses of menadione (more than 5-10 mg/kg parenterally to the baby) were shown to cause kernicterus in the newborn.<sup>2, 4</sup> For this reason, I changed my prophylactic treatment to phytonadione (vitamin K<sub>1</sub>), 5 mg daily, for 15 days starting at the 38th week of gestation. I instruct my patients to take 5 tablets before going to the hospital should they go into labor before the 15 tablets have been taken. The fetus will receive only a fraction of this 25 mg dose of vitamin K<sub>1</sub> given to the mother orally. Even if the fetus received as much as 10 mg of vitamin K<sub>1</sub>, it would not be toxic.<sup>4</sup> In my experience it appears that the fetus is protected from vitamin K deficiency if the mother takes a total of only 4 or 5 tablets of 5 mg of vitamin K<sub>1</sub> during the week before delivery. Dam<sup>5</sup> states that 10 to 20 mg of vitamin K administered to the mother *ante partum* is enough to prevent the postnatal fall of prothrombin in the newborn.

An occasional patient will go into labor earlier than the 38th week, or for some other reason does not receive vitamin K prophylactically. These patients are given 10 mg of phytonadione (vitamin K<sub>1</sub>) parenterally as soon as they report to the hospital in labor. Four hours are required for the vitamin K to reach the fetus and to be effective in raising its level of prothrombin.<sup>4</sup> If the infant is born less than four hours after the mother received vitamin K, it may develop bleeding due to

prothrombin deficiency. To protect these infants from hemorrhage they are given 1 mg of vitamin K1 soon after birth.

Since 1950, there have been many reports of studies showing the beneficial effects of using vitamin K prophylactically before labor.<sup>4, 5, 6</sup> For best results, it has been shown that vitamin K should be given a certain time before birth in divided doses.<sup>4, 5</sup> Vest has summarized the results of many investigations which show this effect. In one report when vitamin K was given to the mother prophylactically, the incidence of hemorrhagic lesions was reduced in full-term infants from 8.8 per 1,000 to 4.3. The cause of death from intracranial hemorrhage was reduced from 54.8 per 1,000 deaths to 21.6. The incidence of bleeding after circumcision was 32 (14%) in 230 infants whose mothers did not receive vitamin K,

compared to 6 (2.5%) in 240 infants whose mothers did receive vitamin K. In another report, the frequency of neonatal hemorrhages due to a coagulation defect was 3.2% when no prophylactic vitamin K was given, compared to 1.1% when vitamin K was given.<sup>4</sup>

### Conclusion

In conclusion, it can be said that bleeding in the newborn due to vitamin K deficiency has almost been eradicated by better prenatal care and by giving vitamin K prophylactically to the mother during labor or to the infant soon after birth. However, the babies at greatest risk, those with low Apgar scores, may be unable to absorb and utilize vitamin K. Therefore, to protect all infants from neonatal hemorrhage, it is recommended that all women be given 5 mg vitamin K1 daily during the last two weeks of pregnancy.

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If uncontrolled "today," the bacterial insult of childhood urinary tract infections may mean major renal injury for the adult "tomorrow." That's why early, aggressive antibacterial therapy is important.

Now control can often be maintained with a new pediatric dosage form of a G.U. specific that is highly effective against the gram-negative spectrum.\* NegGram Suspension is bactericidal over the entire urinary pH range against *E. coli*, *Klebsiella*, *Aerobacter*, and *Proteus*, including *P. mirabilis*, *P.morganii*, *P. vulgaris*, and *P. rettgeri*. Disc susceptibility testing is recommended.

In addition, NegGram Suspension offers these important clinical advantages: fast symptomatic relief • rapid onset of action • no crystalluria or fungal overgrowth reported to date in clinical reports and animal studies • no need to adjust acidity • low incidence of allergic or other side effects† • good correlation between *in vitro* and *in vivo* response†† • no cross resistance has been reported with other antibacterials.

And for the young patient, NegGram Suspension is easy-to-take because of its delicious raspberry flavor.

\*Not effective against *Pseudomonas*.

†See discussion of Adverse Reactions.

††Harrison, L. H. and Cox, C. E.: Bacteriologic and pharmacodynamic aspects of nalidixic acid, *J. Urol.* 104:908, Dec. 1970.

## Introducing NegGram<sup>®</sup> brand of nalidixic acid, NF Suspension for childhood urinary tract infection

### NegGram<sup>®</sup> brand of nalidixic acid, NF

#### Caplets<sup>®</sup> and Suspension

##### Brief Summary

**Indications:** NegGram is indicated for the treatment of urinary tract infections caused by susceptible gram-negative microorganisms, including the majority of *Proteus* strains, *Klebsiella-Aerobacter* (or *Enterobacter*), and *E. coli*. Disc susceptibility testing with the 30 mcg. disc should be performed prior to administration of the drug, and during treatment if clinical response warrants.

**Contraindications:** NegGram is contraindicated in patients with known hypersensitivity to nalidixic acid and in patients with a history of convulsive disorder diseases.

**Warnings:** CNS effects including brief convulsions, increased intracranial pressure, and toxic psychosis have been reported rarely. These have occurred in infants and children or in geriatric patients, usually from overdosage or in patients with predisposing factors. If these reactions occur, NegGram should be discontinued and appropriate measures should be instituted. (See Adverse Reactions and Overdosage.)

**Usage in Pregnancy.** Safe use of NegGram during the first trimester of pregnancy has not been established. However, the drug has been used during the last two trimesters without producing apparent ill effects in mother or child.

**Precautions:** Blood counts and renal and liver function tests should be performed periodically if treatment is continued for more than two weeks. NegGram should be used with caution in patients with liver disease, severely impaired kidney function, epilepsy, or severe cerebral arteriosclerosis.

Patients should be cautioned to avoid undue exposure to direct sunlight while receiving NegGram. Therapy should be discontinued if photosensitivity occurs.

Bacteria resistant to NegGram may emerge rapidly, sometimes within 48 hours of treatment. Therefore, cultures and bacterial sensitivity tests should be repeated if the clinical response is unsatisfactory or if a relapse occurs.

Nalidixic acid may enhance the effects of oral anticoagulants, warfarin or bishydroxycoumarin, by displacing significant amounts from serum albumin binding sites.

When Benedict's or Fehling's solutions or Clinistix<sup>®</sup> Reagent Tablets are used to test the urine of patients taking NegGram, a false-positive reaction for glucose may be obtained, due to the liberation of glucuronic acid from the metabolites excreted. However, a colorimetric test for glucose based on an enzyme reaction (e.g., with Clinistix<sup>®</sup> Reagent Strips or Tes-Tape<sup>®</sup>) does not give a false-positive reaction to the liberated glucuronic acid.

Incorrect values may be obtained for urinary 17-keto and ketogenic steroids in patients receiving NegGram, because of an interaction between the drug and the *m*-dinitrobenzene used in the usual assay method. In such cases, the Porter-Silber test for 17-hydroxycorticoids may be used.

**Adverse Reactions:** Reactions reported after oral administration of NegGram include **CNS effects:** drowsiness, weakness, headache, and dizziness and vertigo. Reversible subjective visual disturbances without objective findings have occurred infrequently (generally with each dose during the first few days of treatment). These reactions include overbrightness of lights, change in color perception, difficulty in focusing, decrease in visual acuity, and double vision. They usually disappeared promptly when dosage was reduced or therapy was discontinued. Toxic psychosis or brief convulsions have been reported rarely, usually following excessive doses. In general, the convulsions have occurred in patients with predisposing factors such as epilepsy or cerebral arteriosclerosis. In infants and children receiving therapeutic doses of NegGram, increased intracranial pressure with bulging anterior fontanel, papilledema, and headache has occasionally been observed. A few cases of 6th cranial nerve palsy have been reported. Although the mechanisms of these reactions are unknown, the signs and symptoms usually disappeared rapidly with no sequelae when treatment was discontinued. **Gastrointestinal:** abdominal pain, nausea, vomiting, and diarrhea. **Allergic:** rash, pruritus, urticaria, angioedema, eosinophilia, joint stiffness, and rarely, anaphylactoid reaction. Photosensitivity reactions, primarily involving exposed skin surfaces, have disappeared after therapy was discontinued. **Other:** rarely, cholestasis, paresthesia, metabolic acidosis, thrombocytopenia, leukopenia, or hemolytic anemia which in some patients may have been associated with a deficiency in activity of glucose-6-phosphate dehydrogenase.

**Dosage and Administration:** **Adults.** The recommended dosage for initial therapy in adults is 1 g. administered four times daily for one or two weeks (total daily dose, 4 g.). For prolonged therapy, the total daily dose may be reduced to 2 g. after the initial treatment period.

**Children.** Until further experience is gained, NegGram should not be administered to infants younger than three months. Dosage in children 12 years of age and under should be calculated on the basis of body weight. The recommended total daily dosage for initial therapy is 25 mg./lb./day (55 mg./kg./day), administered in four equally divided doses. For prolonged therapy, the total daily dose may be reduced to 15 mg./lb./day (33 mg./kg./day). NegGram Suspension or NegGram Caplets of 250 mg. may be used. One 250 mg. Caplet is equivalent to one teaspoon (5 ml.) of the Suspension.

**Overdosage: Manifestations.** Toxic psychosis, convulsions, increased intracranial pressure, or metabolic acidosis may occur in patients taking more than the recommended dosage. Vomiting, nausea, and lethargy may also occur following overdosage. **Treatment.** Reactions are short lived (two to three hours) because the drug is rapidly excreted. If overdosage is noted early, gastric lavage is indicated. If absorption has occurred, increased fluid administration is advisable and supportive measures such as oxygen and means of artificial respiration should be available. Although anticonvulsant therapy has not been used in the few instances of overdosage reported, it may be indicated in a severe case.

**How Supplied:** Suspension (250 mg./5 ml. tsp.), raspberry flavored, bottles of 4 fluidounces and 1 pint.

Caplets of 250 mg., scored, bottles of 56 and 1000.

Caplets of 500 mg., scored, bottles of 56, 500, and 1000.



Winthrop Laboratories, New York, N.Y. 10016 (1593M)



# *Editorials*

## Breast Cancer Detection – A Demonstration Project

Breast cancer is the most common cancer in women, affecting one out of every fifteen women sometime in their lives. It remains the leading cause of death among women 40 to 55 years of age. The National Cancer Institute (NCI) and the American Cancer Society (ACS) are sponsoring a nation-wide effort to find breast cancer in its earliest possible stage. Honolulu is one of twenty cities in the Nation which will take part in this research effort. Evaluation will be made of the effectiveness of combining the techniques of mammography, thermography, and breast palpation in earlier detection of breast changes. Mammography is available in a number of medical institutions in Hawaii; thermography is a new screening technique that is still being evaluated.

The examinations are available at no charge to women between the ages of 35 and 74 who have no known breast problems at the time of examination. This is a research project; there are definite guidelines which must be followed. Plans call for screening 5,000 women by March, 1975. In the second year these women will be re-examined and an additional 5,000 women will be examined for the first time. The screening involves breast palpation and instruction on breast self examination (BSE), mammography (a low-dose x-ray of the breast), and thermography (a picture of the breast showing temperature differences). The equipment selected for the PHRI project are the Siemens Mammomat (for mammography) and the General Electric Spectrotherm (for thermography).

Dr. Fred I. Gilbert, Jr., is the Project Director, Dr. Thomas C. Brown the Chief Radiologist on the project and Dr. John Balfour will train the staff in breast examination and patient instruction in BSE. Other physicians participating are Dr. Lina Yu, Coordinating Pathologist, and consultants Dr. Elisabeth Anderson, Dr. Robert Nordyke, and Dr. Gary Globber.

The Hawaii Division, Oahu Unit, of the ACS is providing major assistance with the project locally. Dr. R. de los Santos and Mrs. Betsy Thacker, ACS volunteer, are Co-chairpersons of the Division's Breast Cancer Task Force. Mrs. Doty Morgan of ACS is coordinating the Unit's

efforts. Other ACS volunteers are involved in providing public information about the project, recruiting women from all ethnic and socio-economic groups in the Hawaiian Islands, Guam, and American Samoa, and they will work in the screening center itself in various capacities.

### **Coronary Heart Disease**

The Research Institute submitted a contract proposal to the National Heart and Lung Institute (NHLI) which called for the screening of 12,000 men for three risk factors (high blood pressure, elevated serum cholesterol, and cigarette smoking) associated with coronary heart disease. Those men found to have these risk factors were to enter a six-year program to control blood pressure, lower serum cholesterol, and discontinue the smoking habit with the intention of preventing coronary heart disease. All results would have been measured to determine if these preventive medicine methods are useful. Dr. Robert Weiner, Principal Investigator, was called to Washington, D.C. last August to discuss the proposal. As we understand it, PHRI was in strong contention for the grant award, but was not one of the five institutions finally chosen.

In the preparation of the proposal, several companies and the Governor's and Mayor's offices had pledged their support and we were most grateful for the time and energy given by many people in the support of the goals of this complex proposal.

### **Hypertension**

In late fall 1973, the NHLI announced their intention to support a Nation-wide program of education as a means of controlling hypertension in our population. Just before Thanksgiving, PHRI submitted a proposal to NHLI to develop and evaluate the effectiveness of a unique educational program for individuals with hypertension. The unique aspect of the program is the involvement of the families of these individuals as an integral part of the educational process and providing the program for each patient and his family in their own community.

Joint meetings were held with representatives of the Hawaii Heart Association and the Hawaii Medical Association to consider a three-pronged, coordinated response to the national effort. Professional, community, and patient education were developed in three separate proposals. The cooperative and coordinative efforts were reflected in the text of each proposal and in a common cover letter. The proposals are as follows:

- Section I     Hawaii Cooperative Hypertension Program  
                    Dr. A. Morris, Principal Investigator
- Section II    Education for Hypertensive Persons and Their Families

Dr. R. Weiner, Principal Investigator

- Section III   Screening and Evaluation of Hypertensive Patients  
                    Dr. S. Gresham, Principal Investigator

All three proposals have been received in Washington and are being considered by the NHLI. Grant awards are expected to be announced in April 1974.

AMERICAN CANCER SOCIETY  
*Hawaii Division*

## THE DOCTOR

It is hard to get a doctor to come  
To the house, as he used to do,  
When you're ill, you go to his office,  
And wait an hour or two.

The old-time doctor who used to call  
Was different in his ways,  
He would sit and chat with his patient  
In the "gay old ninety" days.

I realize the world has changed,  
It is too much with us now;  
The doctor has twice the work to do,  
This we must all allow.

In the old days he stayed awhile  
And would have a tasty snack,  
And when he left you felt so well  
You didn't call him back.

The general practitioner  
Was much respected then,  
He was looked up to as a god  
And the bravest of all men.

He has come far since those old days  
In science, research, cures,  
And he will rise to greater heights  
As long as life endures.

God bless those dedicated men  
Wherever they may be,  
Who are fighting germs and foul disease  
For all humanity.

MINERVA MALSON SIMPSON

February 1974

(Mrs. Simpson, 98, is the mother-in-law of C. G. Murdock, M.D., Chief, School of Health Branch, State of Hawaii, Department of Health.)



## Life In These Parts

Gleaned from a Makai III bulletin board for nurses: "Nice Guys Die First. . . . Growing old graciously is a trait admired in the elderly, but unfortunately it is not a guarantee of longevity. . . . The people who live the longest are the crotchety, cantakerous types who make demands on those about them. . . . It looks as if growing old gracefully is an invention of the poets, rather than an adequate guide to survival."

OB Gyn man **John Ohtani** is the newly elected President of the Dental Association Golf Club. . . .

In the wake of the toilet tissue shortage, **Ed Jim's** new four toilet home came equipped with only one toilet because of a toilet fixture shortage. . . .

Our HMA executive **Tom Thorson** was furious. . . . "No physician we know is more gentle, passive and as soft spoken as our **Edwin Adam**. . . . Can you imagine, he being sued for assault and battery because as a part-time C&C physician he took blood for alcohol level on a boisterous drunk at the local calaboose?"

## Professional Moves

Thus, far, this Year of Ox has shown only minimal moves in our medical community except for the psychiatrists. . . . (We are unable to draw any conclusions from this bit of information). In February, **Joe Chua Chiaco** resumed practice with the Maui Clinic at Kahului and psychiatrist **Donald Nixon** associated with Hawaii Psychiatry, Inc. at 110 University Ave. When **Vernon Boido** of Kolca retired in Honolulu, **Charles Custer**, president of Waimea Clinic, Inc. announced that **Thomas Amott** would take over the Koloa Clinic with other Waimea Clinic physicians rotating through. On Hawaii, our next psychiatrist, **Francis Pritchard** resigned from the West Hawaii Mental Health Clinic at Kealahakua and our third psychiatrist, **W. Brooks Griffith** took his place.

Then in March, two more psychiatrists (our 4th and 5th) joined the Maui Mental Health service; viz a **Harold Rinier** recently of the Menninger Foundation and **Robert Spencer**, former medical administrator of the Hawaii State Hospital and also former chief of the Mental Health Division in Honolulu. OB man **Benjamin Branch** joined the North Shore Medical Clinic at Kahuku and GP **Catalino Cachero** moved to 1834 Nuuanu Ave. **Richard Frankel**, our infectious diseases expert, announced that he was available for consultation. (Dick, we discovered, was a good man to have around. . . . We recently had an elderly man who developed a resistant pneumonia after hip surgery. We called Dick in after several frantic weeks of intensive therapy with the latest antibiotics. With a single sweep of his transtracheal aspiration needle he found candida and prescribed 5-FC which promptly cleared the candida pneumonitis).

## Elected, Appointed, and Honored

On the academic front: Surgeon **J. Judson McNamara** was granted Fellowship in the American College of Cardiology. . . . Pediatricians **Calvin Sia**, **James Mertz**, **Richard Adler** and **Alexander Roth** were awarded Certificates of Appreciation from the American Academy of Pediatrics for consultation work in the Head Start Program. . . . GP's **Robert Benson**, **William Walsh**, **Garton Wall** and **Varian Sloan** were named Fellows of the American Academy of Family Physicians. . . . **Arch Wigle** of Naalehu was named a Diplomate of the American Board of Family Practice. The other local Diplomates are **William McLaughlin**, **Rodman Miller**, **Richard Tessoro** and **Mark Wentworth**.

On the political front: **Richard Mamiya** (whose term

expires this year) was unanimously elected chairman of the State Board of Health replacing **Cesar de Jesus** who held the post for seven years. **George Takushi** and **Allan Leong** were among the new members appointed to the Board. **Edward Hirashima** was appointed to the Boxing Commission and **John Ohtani** to the Board of Medical Advisors. From Kauai, **Yonemichi Miyashiro** was appointed to the Board of Health and **Patrick Aiu** to the Board of Medical Examiners.

On the national and international fronts: Our *Journal* Editor **Harry Arnold, Jr.**, is one of only 13 Hawaii residents listed in the new "Who's Who." **Kyuro Okazaki** was one of 19 Hawaii residents honored with citations from the Japanese government for promoting US Japan relations at a United Japanese Society banquet.

On the local front: **George Mills** was reelected to another two-year term as president of the statewide Association of Hawaiian Civic Clubs. **Ray Huffman**, who once interned at Kuakini returned to Kuakini as its' first full-time Medical Education Director to spell **Ed Yamada** who was part-time director all these years. **John Briley** of Maui was appointed a director of Easter Seals of Maui County. **Carl Lehman** was named 3rd vice president of the board of Child and Family Service.

## Miscellany

The Pollack went to see an ophthalmologist to have his eyes checked. The doctor pointed to the eye chart and said, "Now read the top line. . . ." The Pollack started to spell out the letters, "Z-B-X-L-K-M" "Hell, Doc! That's my brother-in-law's name." (Tom Thorson)

The surgeon had just finished the last stitch on the ano-rectal operation when he noticed a piece of string sticking out of the anus. . . . He gingerly pulled at the string and it kept coming easily, yards and yards of it before it finally seemed to stick. He gave a hefty tug and out came a bouquet of roses. . . . When the surgeon exclaimed, "Where in the hell did that come from?" The patient suggested, I don't know, Doc . . . why don't you read the card." (A Bill Wilkinson joke heard by Tom Thorson)

## Sportsmen

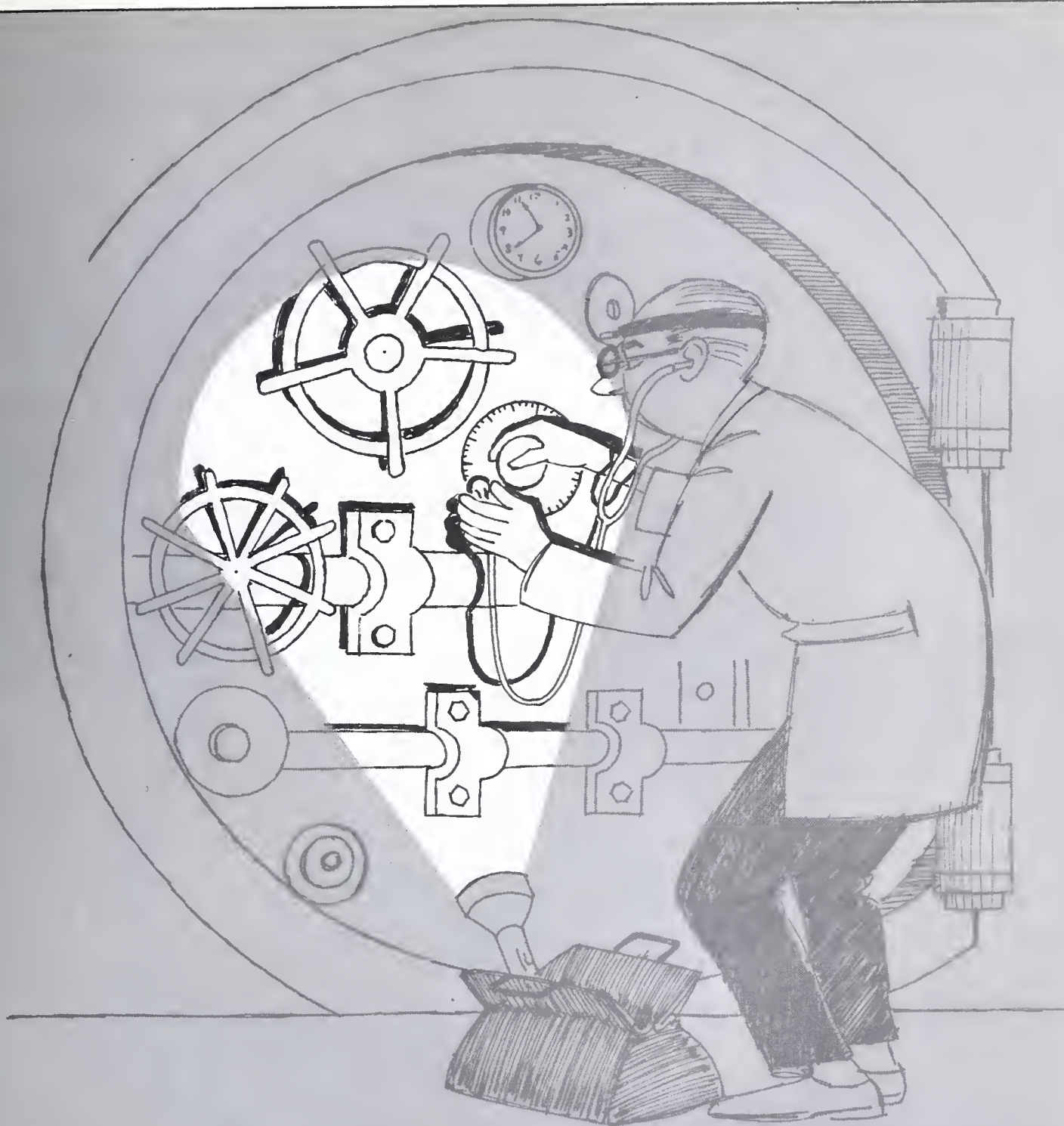
Polio victim, **John Briley** of Maui was one of the March of Dime walkers. John raised \$344 for a "courageous" final mile of the 20 mile walk. . . .

Mid Pac Thursday Club: **Garth Morimoto** who had won the September trophy repeated the feat by winning the November trophy. **Herb Takaki** was second.

Excerpts from the sports columnists: "Dr. **Richard You**, co-chairman of Miss Hawaii-USA contest, has never lacked for ambitious plans. He's trying to arrange for the winning Miss USA to visit Moscow and Peking, where beauty pageants are certainly a foreign subject." "Dr. **Richard You**, chairman of the Hawaiian AAU Weightlifting Committee, said the Oahu Open Weightlifting Championships, hosted by the Nuuanu Y, will be held at 7 p.m. Saturday." "Dr. **Edmund Lum**, the personable ring physician for the professional fights at the HIC, was only one of thousands of people in Osaka, Japan, last week who saw the Ben Villaflor-Apollo Yoshio junior lightweight title match. . . . Dr. Lum disagreed with the three officials who called it closer than a pair of young lovers—or old ones even. 'Ben clearly won. . . . There wasn't any doubt about it,' said Dr. Lum. . . ."

While **Hideo Oshiro** has his "Ki" system of golf, fellow ENT man **Al Ho** announces his "Tai Chi" system of golf which Al claims is superior. In the recent Hawaiian Open Pro-Am Tournament, Al (a nine handicapper)

*continued page 145*



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Lease it. It's an uncomplicated process. Shop for the sophisticated equipment best suited to your practice. When you find exactly what you want, at any dealer, we will buy it and lease it to you. That's all there is to it.

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tax benefits because fully-deductible leasing is like accelerated depreciation.

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Maybe the patient's self-diagnosis is right. He could have hay fever. But that bright red nasal mucosa, along with the thick discharge and excoriation around the nares, strongly suggests that the main problem is a cold. Hay fever or another form of allergic rhinitis may or may not be an underlying factor.

If a complete history and examination rule out allergic rhinitis, the long-term outlook will be a lot more favorable than his own "diagnosis" would have indicated.

But right now, whether he's got allergic rhinitis or a cold, he's suffering from the same irritat-

ing symptoms of drip, congestion and stuffiness. Try DIMETAPP EXTENTABS®. They're formulated to relieve these symptoms without much chance of causing drowsiness or overstimulation. Your patients will appreciate the 24-hour relief they can get from just one tablet every 12 hours.

# *Cold or*



# *Allergy?*

**Whether it's a cold or an allergy, Dimetapp Extentabs® effectively relieve stuffiness, drip and congestion.**

**INDICATIONS:** Dimetapp Extentabs are indicated for symptomatic relief of allergic manifestations of upper respiratory illnesses, such as the common cold, seasonal allergies, sinusitis, rhinitis, conjunctivitis and otitis. In these cases it quickly reduces inflammatory edema, nasal congestion and excessive upper respiratory secretions, thereby affording relief from nasal stuffiness and postnasal drip.

**CONTRAINDICATIONS:** Hypersensitivity to antihistamines of the same chemical class. Dimetapp Extentabs are contraindicated during pregnancy and in children under 12 years of age. Because of its drying and thickening effect on the lower respiratory secretions, Dimetapp is not recommended in the treatment of bronchial asthma. Also, Dimetapp Extentabs are contraindicated in concurrent MAO inhibitor therapy.

**WARNINGS:** *Use in children:* In infants

and children particularly, antihistamines in overdose may produce convulsions and death.

**PRECAUTIONS:** Administer with care to patients with cardiac or peripheral vascular diseases or hypertension. Until the patient's response has been determined, he should be cautioned against engaging in operations requiring alertness such as driving an automobile, operating machinery, etc. Patients receiving antihistamines should be warned against possible additive effects with CNS depressants

## ***Dimetapp Extentabs®***

Dimetane® (brompheniramine maleate), 12 mg.; phenylephrine HCl, 15 mg.; phenylpropanolamine HCl, 15 mg.

such as alcohol, hypnotics, sedatives, tranquilizers, etc.

**ADVERSE REACTIONS:** Adverse reactions to Dimetapp Extentabs may include hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia; drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, hypotension/hypertension, headache, faintness, dizziness, tinnitus, incoordination, visual disturbances, mydriasis, CNS-depressant and (less often) stimulant effect, anorexia, nausea, vomiting, diarrhea, constipation, and epigastric distress.

**HOW SUPPLIED:** Light blue Extentabs in bottles of 100 and 500.

**A-H-ROBINS**

A. H. Robins Company, Richmond, Va. 23220



# when pain goes on... and on... and on—



For the patient with a terminal illness, PAIN past, present, and future can dominate his thoughts until it becomes almost an obsession. The more he is aware of the pain he is now experiencing, the more difficult it is to erase his memory of yesterday's pain, and to allay his fearful anticipation of tomorrow's pain.

Surely the last thing this patient needs is an analgesic containing caffeine to stimulate the senses and heighten pain awareness. A far more logical choice is Phenaphen with Codeine. The sensible formula provides  $\frac{1}{4}$  grain of phenobarbital to take the nervous "edge" off, so the rest of the formula can help control the pain more effectively. Don't you agree, Doctor, that psychic distress is an important factor in most of your terminal and long-term convalescent patients?

the analgesic formula that calms instead of caffeinates

## Phenaphen<sup>®</sup> with Codeine

Phenaphen with Codeine No. 2, 3, or 4 contains: Phenobarbital ( $\frac{1}{4}$  gr.), 16.2 mg. (warning: may be habit forming); Aspirin ( $2\frac{1}{2}$  gr.), 162.0 mg.; Phenacetin (3 gr.), 194.0 mg.; Codeine phosphate,  $\frac{1}{4}$  gr. (No. 2),  $\frac{1}{2}$  gr. (No. 3) or 1 gr. (No. 4) (warning: may be habit forming).

**Indications:** Provides relief in severer grades of pain, on low codeine dosage, with minimal possibility of side effects. Its use frequently makes unnecessary the use of addicting narcotics. **Contraindications:** Hypersensitivity to any of the components. **Precautions:** As with all phenacetin-containing products, excessive or prolonged use should be avoided. **Side effects:** Side effects are uncommon, although nausea, constipation and drowsiness may occur. **Dosage:** Phenaphen No. 2 and No. 3—1 or 2 capsules every 3 to 4 hours as needed; Phenaphen No. 4—1 capsule every 3 to 4 hours as needed. For further details see product literature.

Ⓒ Phenaphen with Codeine is now classified in Schedule III, Controlled Substances Act of 1970. Available on written or oral prescription and may be refilled 5 times within 6 months, unless restricted by state law.

A. H. Robins Company, Richmond, Va. **A·H·ROBINS**



teamed with Billy Casper and shot 13 under for a 3rd place tie.

Joe Nishimoto claims Phil Lee recently lost 28 bottles of Royal Salute in a friendly golf match at WCC. Novice golfer Phil refutes Joe's claim saying it was only 16 bottles. Phil learned that there was more to golf than taking a few lessons from local golf pro, John Kalinka.

Since returning from Tokyo where he took a 2-week crash course in "Ki" from Koichi Tohei, the grand master himself, Hideo Oshiro has started a "Ki" class on Tuesday evenings where we see fellow golfers, Ed Izawa, Cool Wakai and even non-golfers like Henry Watanabe, Leigh Sakamaki, Ed Quinlan, Mitsun Totori. Even George Suzuki and Al Ho have sat and observed the mystic rituals. . . . We have from reliable sources that Hide is hitting that golf ball farther than ever. . . .

## Tom Thorson's Corner

"The situation with PSRO reminds me of a Texas law that sez, 'When two trains arrive simultaneously at an intersection, both shall stop and neither shall proceed until the other has gone forward. . . .' That's the way with PSRO. . . . No one knows what to do and no one is going ahead till someone makes a move. . . ."

The first bathtub in the US was introduced in Cincinnati in 1842. It was branded undemocratic and a needless luxury. Doctors called it a menace to health. A law was passed in Boston in 1845 which made it illegal to bathe except when prescribed by a doctor. . . .

A Shakespearean Repertory Company on tour came to a town where the local sign painter quoted outrageous prices so they decided to abbreviate thusly:

"The Shakespearean Repertory Company presents:  
Monday—"Wet" (For Midsummer Night's Dream)  
Tuesday—"Dry" (For Twelfth Night)  
Wednesday—"Abortion" (For Love's Labor Lost)  
Thursday—3 inches (For Much Ado About Nothing)  
Friday—6 inches (For As You Like It)  
Saturday—9 inches (For The Taming of the Shrew)

## Hors De Combat

The Maui Historic Commission denied James Fleming's request to use an existing residence in the Wailuku historic district as a medical office.

House Bill 2733 would provide free emergency ambulance service to persons without medical coverage, but would charge persons with medical insurance. HMSA was against and the State Health Department with director, Walter Quisenberry for the bill. Livingston Wong, HMSA project director asked legislators to delay passage until a study on the financing of such a bill could be completed.

The headline read: "Puncture Acupuncture Bill" Doctors and dentists opposed a House Bill which would require the licensure of acupuncturist by a board of three acupuncturists, a physician, a dentist and two citizens. Mor McCarthy of the Board of Medical Examiners opposed the bill which would permit licensed acupuncturists to practice without supervision. The Board of Dental Examiners also felt that it should have jurisdiction over dentists using acupuncture, but oral surgeon Robert Pekarsky favored the bill because he felt it would remove quackery. Acupuncturist Lily Siou who trained in China said, "In China, acupuncturists and medical doctors associate and cooperate, but one does not dominate the other." Both the HMA and the State Health Dept. urged that acupuncturists be required to practice under a doctor's supervision.

In March, a six man, six woman Federal Court jury found neurosurgeon Maurice Silver innocent of filing false Federal tax returns from 1965 through 1967. Last year, his first trial had ended in a hung jury. The IRS had

sought to prove that Maurice omitted some \$31,000 over the three years, but his defense attorneys said any unpaid taxes came from an accounting confusion between Maurice and his two nurse-bookkeepers.

Doctors and lawyers clashed over a bill requiring an automatic court hearing for any person involuntarily admitted to a psychiatric facility. The lawyers contended that the burden of requesting a court hearing should not fall on a person considered mentally ill, and the opposition felt that the Family Court work load would increase, and that psychiatrists' fees would rise. Psychiatrist George Schnack testified that "in Hawaii, there is no evidence of such a need." George felt that in his 20 years of psychiatric experience, he has not heard of any mental patient being railroaded into unnecessary involuntary hospitalization.

Retired physician, Bertram Hirsch, testified before a State committee for gas rationing that "doctors make no more house calls, so they deserve no special allocation. . . . If rationing must come, I beg you . . . this time, let's have it pro bono publico, and not the damned special interests."

Kailua physicians Mor McCarthy and Philip Foti testified at a City Council hearing against the Castle Hospital application for a proposed medical office building, while Hamilton Winston testified that at least 22 physicians from Kailua, Kaneohe and Honolulu were interested. Mor and Philip called the Castle Hospital project "irresponsible community health service planning on the part of the hospital administration."

## Miscellany

Tom Leinweber says, "With the price of milk what it is, do you know of any wet nurses in town?"

The 9-year-old little leaguer asked his mother, "Mom, what makes the ball curve?" "Ask your dad. He's the physicist. . . . He knows how it works." The son protested, "But mom, I don't want to know that much." (Tom Thorson)

Our architect friend Diek Dennis reported, "During the Sunday sermon at St. Andrews, a streaker dashed past the pulpit. The deacon chased after him, and caught him by the organ."

Do you know why policemen have bigger balls than firemen? Because they sell more tickets. (Tom Thorson's repertoire)

## Conference Notes

Infectious diseases expert, Richard Frankel (at a Queen's medical conference) said:

Cephalothin is indicated for gram positive infections in penicillin allergic patients, and for some E. Coli, Klebsiella and Proteus infections. . . . Comparison of cephalothin and ampicillin does not show much overall difference except in Klebsiella pneumonia, and not much difference in GU infections. . . . Gentamicin is the drug of choice in life threatening gram negative infections. The 80mg tid dose in the PDR is ineffective. With normal renal function, a 1.7mg/kg q 8 hr dose is recommended. . . . The nephrotoxicity of Gentamicin and Kanamycin is reversible. . . . Monitor the level of therapy to prevent ototoxicity. . . . The earliest symptoms of ototoxicity are stuffiness in the ear and tinnitus. . . . Monitor with audiograms and creatinine clearance daily to once every 3 days. . . .

Pediatric surgeon Walton Shim (at a Children's noon conference) reported: In Hawaii, the incidence of pyloric stenosis is low in the orientals. In Japanese, the incidence is 1/5 the caucasian incidence (or about 1 in every 2,000 births). In pure Chinese births, there have been none in the past 25-years (or none in 11,000 births).

Gastroenterologist Gary Globor (at a Kuakini GI conference) reassured: In patients with well established

continued page 146



cirrhosis, alcohol does not affect the prognosis. . . . SGPT is much greater than SGOT in acute liver disease while in chronic liver disease, SGPT is normal and SGOT elevated.

Endocrinologist **Werner Schroffner** lecturing on hypothyroidism and thyroid tests said: "Don't diagnose a patient by tests alone. . . . Use your clinical judgment" re, PBI "I call it an ancient test. . . . Use the T4 (either by column or CPB) and Resin T3 for initial screening."

## Doctors In Print

**Robert T. S. Jim**, "Thalassemia today—more prevalent than yesterday?" *Consultant* Mar '74 p 103-104 (Bob says Thalassemia is an inherited disorder resulting from a decreased synthesis of the alpha and beta chains in the hemoglobin molecule. It is characterized by abnormally thin red cells, and is common among oriental races in Hawaii and Southeast Asia, ie, the Chinese, Filipinos, Burmese, Indonesians, Malaysians and Thais, but strangely rare in the Japanese and Koreans. There is a mild trait form, Thalassemia Major (homozygous state) and the Alpha Thalassemia Intermedia Group (Hemoglobin H disease). Thalassemia is most often confused with iron deficiency anemia because it is also microcytic and hypochromic. There is no specific treatment of Thalassemia available, except transfusions in severe cases, and iron is of no benefit or may actually be harmful by causing tissue hemosiderosis. "Fortunately most patients with Thalassemia have a good prognosis, but whenever possible, they should know that they are carriers of the disorders and could endanger their offspring.")

We received a copy of "The White Way" an autobiography by **Rev. Ryoshin Okano** and translated by **Kazuo Miyamoto**. Kazuo, who retired 4 years ago is 73, and a truly bilingual and prolific writer. He has recently published an English version of "WAKO" (A historical novel about Japanese seafarers, who roved the Japan Sea, the China Sea, and parts of the Pacific in the 13th Century. They even established a Japanese city in Thailand). Kazuo's other publications include: "Hawaii—End of the Rainbow" (which is available in paper back), "A Nisei Discovers Japan," "A Glimpse of Formosa and China Under Japanese Occupation in 1939", etc.

## Visiting Physicians

Visiting pediatric professor at Children's Hospital in March was **Jacqueline Noonan**, a small dynamo, and a pleasant voiced clinician with much common sense. We caught one of her lectures on "functional murmurs" which she presented with gusto, inspite of a 2° sunburn which presented a vermillion skin contrasting with her blond hair and gold rimmed glasses. Herein are a few Noonanisms:

"Most pediatricians handle functional murmurs well until they order an EKG or chest X-ray."

"Patent ducturs and coarctation of the aorta require surgery even when mild, and the EKG and chest X-ray are normal."

"If you are worried about murmurs in the newborn, worry about respiratory difficulties." We jotted down the following information (for whatever it is worth to anyone):

The normal heart with an "abnormal" EKG include: 1. RSR pattern. 2. Juvenile "T" wave pattern. 3. Tall voltage over LV. The normal heart with an "abnormal" chest X-ray include: 1. Expiratory film. 2. Large thymus. 3. Pectus deformity. 4. Straight back syndrome. The "abnormal" heart with "normal" EKG's and chest X-rays are: 1. Small PDA. 2. Small VSD. 3. Mild aortic stenosis. 4. Mild pulmonary stenosis. 5. Coarctation of aorta. 6. Pulmonary artery branch stenosis. 7. Mild mitral insufficiency. 8. Mild aortic insufficiency. 9. Papillary muscle dysfunction.



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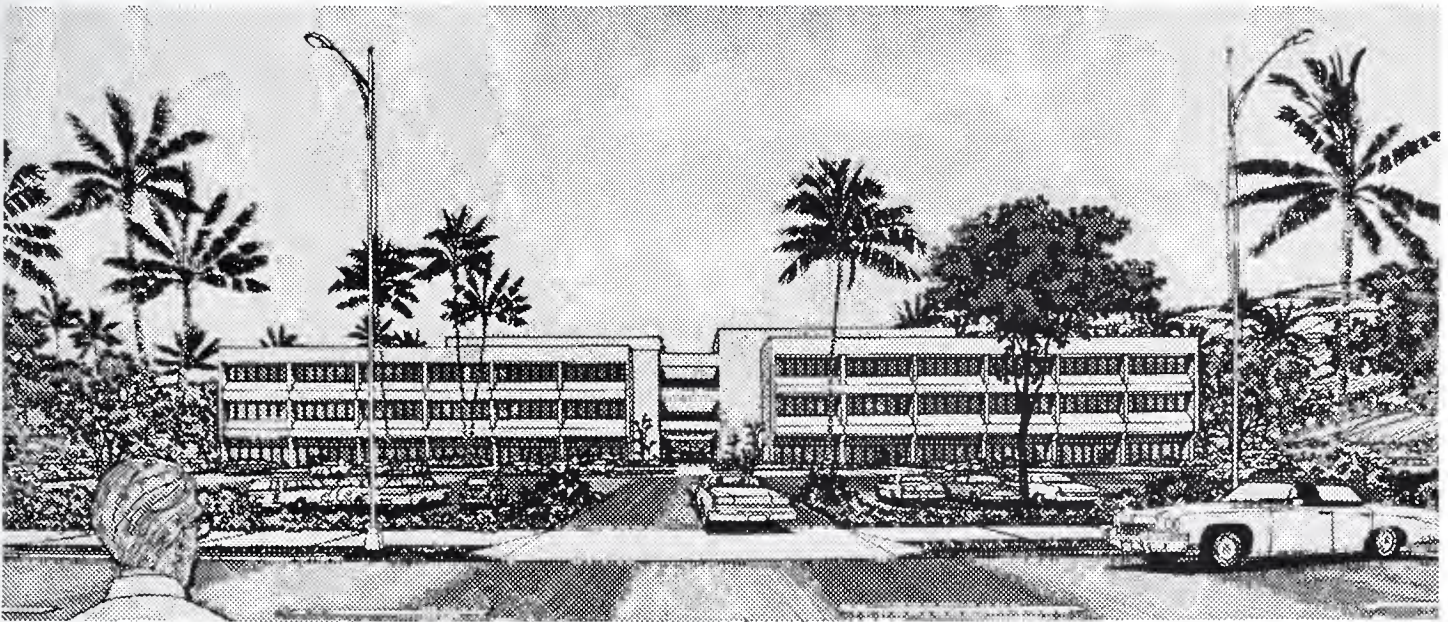
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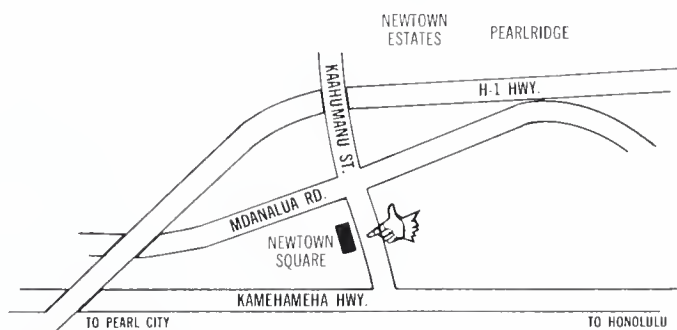
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Prime objectives of total patient therapy include: symptomatic relief, removal of apprehensions about organic disease and helping the patient understand how excessive anxiety may trigger physical

---

**Before prescribing, please consult complete product information a summary of which follows:**

**Indications:** Relief of anxiety and tension occurring alone or accompanying various disease states.

**Contraindications:** Patients with known hypersensitivity to the drug

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patient against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

**Precautions:** In the elderly and debilitated, and in children over six limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions

complaints. Brief counseling and the utilization of favorable factors in the patient's personality and environment can often provide needed support.

**Antianxiety therapy.** Antianxiety medication may prove a valuable supplement when counseling and reassurance are not sufficient to allay the patient's emotional distress and relieve his anxiety-provoked physical complaints. The agent prescribed should be both clinically effective and generally free from undesirable side effects. Librium (chlordiazepoxide HCl) meets these requirements with a high degree of consistency, and has a wide margin of safety and an excellent record of patient acceptance. The most common side effects reported have been drowsiness, ataxia and confusion, particularly in the elderly and debilitated.

Whenever anxiety is a clinically significant factor, adjunctive Librium is used concomitantly with specific gastrointestinal drugs such as anticholinergic agents. Once anxiety has been reduced to appropriate levels, treatment with Librium should be discontinued.

in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

**Adverse Reactions:** Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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# how to civilize the of peptic ulcer...

give pain killers?...prescribe frequent eating?...use antacids only

## give pain killers only?

They relieve pain but may cause patient drug dependency and unnecessary sedation.

## prescribe frequent eating only?

Frequent feeding helps buffer acid, but caloric, digestive, and social considerations make frequent eating both difficult and impractical.

## use antacids only?

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**Warnings:** Patients with severe cardiac disease should be given this medication with caution.

Fever and possibly heat stroke may occur due to anhidrosis.

In therapy a curare-like action may occur, with loss of voluntary muscle

control. For such patients prompt and continuing artificial respiration should be applied until the drug effect has been exhausted.

Diarrhea in an ileostomy patient may indicate obstruction, and this possibility should be considered before administering Pro-Banthine.

**Precautions:** Since varying degrees of urinary hesitancy may be evidenced by elderly males with prostatic hypertrophy, such patients should be advised to micturate at the time of taking the medication.

Overdosage should be avoided in patients severely ill with ulcerative colitis.

**Adverse Reactions:** Varying degrees of drying of salivary secretions may



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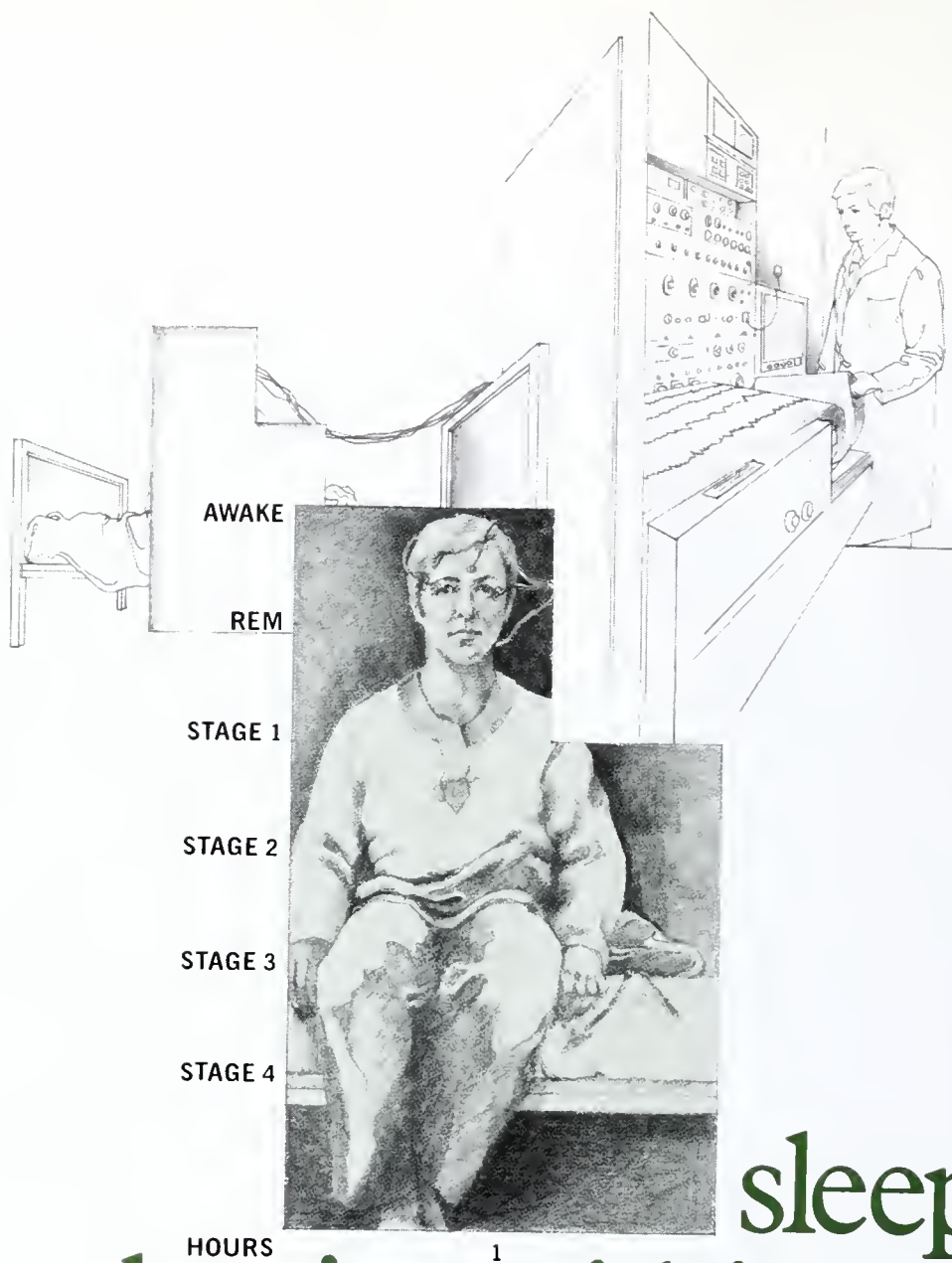
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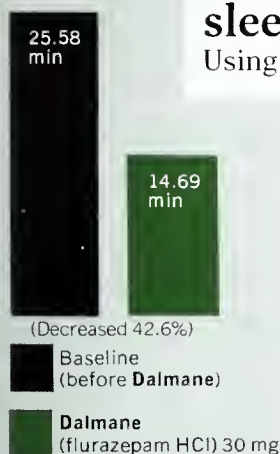


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Average Time Required  
to Fall Asleep (4 Studies,  
16 Subjects<sup>2-5</sup>)



## confirmed by clinical studies in four geographically separated sleep research laboratories<sup>2-5</sup>

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**Indications:** Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

**Contraindications:** Known hypersensitivity to flurazepam HCl.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

**Precautions:** In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

**Adverse Reactions:** Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, e.g., excitement, stimulation and hyperactivity, have also been reported in rare instances.

**Dosage:** Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

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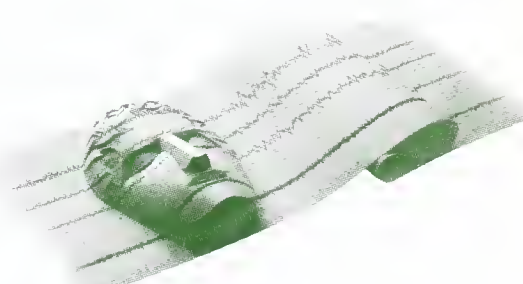
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5. Dement WC: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ



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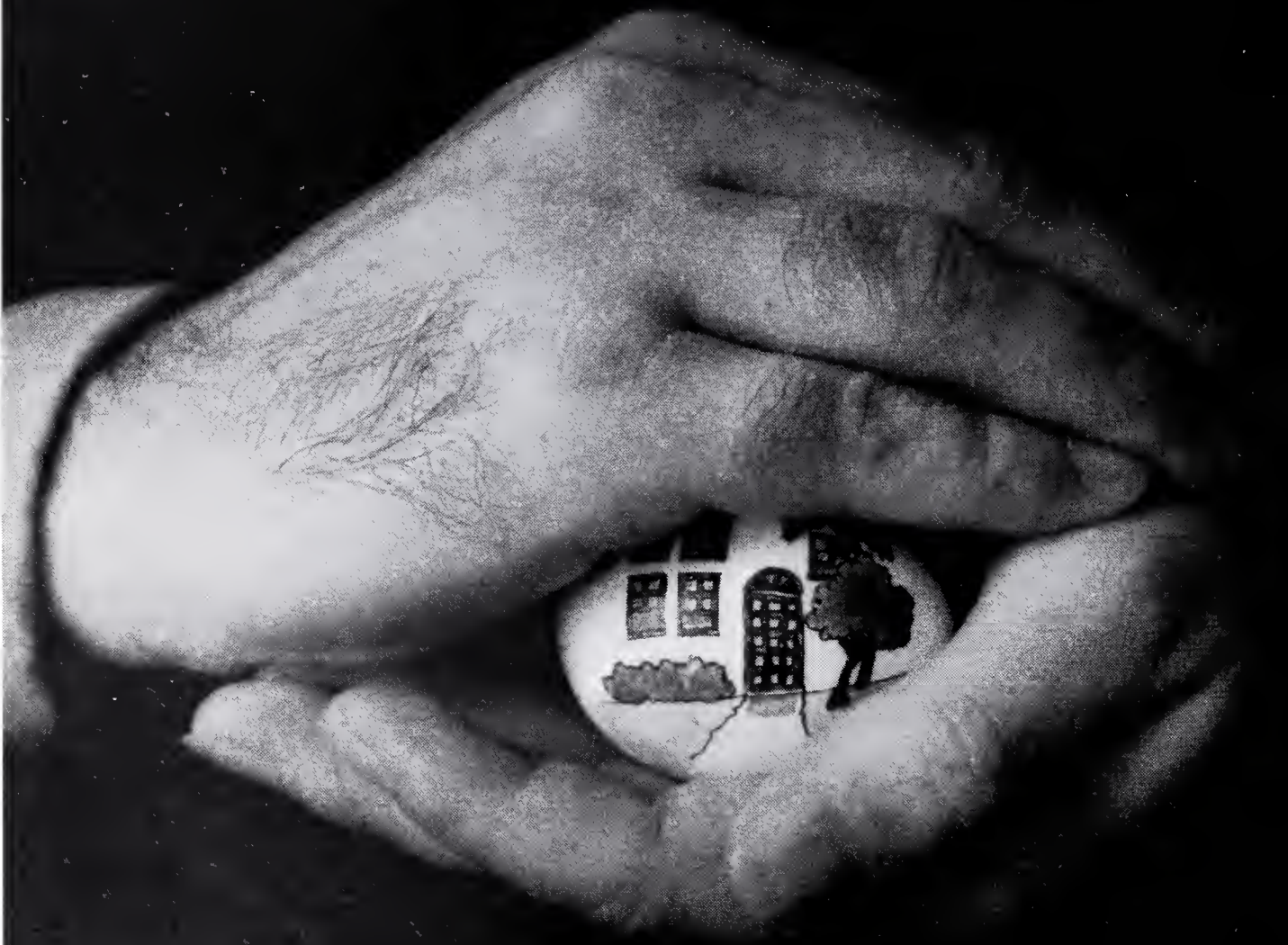
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*Cover: An original drawing of the Bandstand on the grounds of Iolani Palace by local artist Alec Baird.*



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*Surgical treatment can add to the lives of cardiac patients . . .*

## Status of Surgical Therapy for Coronary Artery Disease

J. JUDSON McNAMARA, M.D., Honolulu

● *Coronary artery bypass graft (CAB) has received wide acceptance as a method of treating coronary heart disease. Rapid development and extensive application of the technique in some centers has led to confusion as to which patients with coronary disease should be considered candidates for surgery, what the surgical risks are, what are the chances for long-term success of the procedure, and what criteria for success should be applied for judging short-term and long-term results. Lack of controlled studies has made it difficult to judge the success of CAB in increasing longevity when compared with non-surgical therapy. The present report reviews the literature on the topic and outlines currently acceptable guidelines of indications for surgery, type of operation, operative mortality and long-term results of surgical therapy.*

CORONARY artery bypass was introduced as a method of revascularizing ischemic myocardium in 1966. The procedure has developed so rapidly in the past three years that operative experience now exceeds 1,000 cases in numerous centers.<sup>1-4</sup> Currently employed criteria for operability vary widely, from selecting only the most severely incapacitated patients with angina pectoris to the mere presence of a greater than 75% angiographic stenosis of a major coronary vessel.

Though considerable controversy exists relative to surgical treatment of coronary artery disease, general agreement has been reached on several points. Coronary arteriography is required for adequate assessment of patients with coronary artery disease. Over 90% of patients with angina

have significant ( $>75\%$ ) obstruction of one or more coronary arteries.<sup>5, 6</sup> Over 90-95% of patients with an obstructed coronary artery can have a CAB inserted distal to the obstruction.<sup>6, 7, 8</sup> Anastomoses to vessels as small as 2 mm in diameter can be satisfactorily made routinely, largely as a result of the development of microvascular surgical techniques and development of extremely fine synthetic sutures. Patency rate one to two years after the operation is generally between 75% and 90%.<sup>1, 9</sup>

### Indications for Surgery

Several indications for surgical therapy are now broadly accepted and will be discussed first. Other less generally accepted indications and specific contra-indications will be subsequently outlined.

#### *Angina Pectoris*

Angina is generally accepted as a legitimate indication for CAB. However, considerable controversy exists as to how much angina a patient should have before being considered a candidate for surgery. Incapacitating angina is the most frequently quoted indication, but incapacitation is defined differently by different workers. We have considered any patient incapacitated if he is unable to perform his daily tasks.

Treadmill exercise testing pre-operatively provides an objective confirmation of anginal symptoms, as well as a baseline for post-CAB evaluation and follow-up.<sup>10-12</sup> A number of other variables influence selection of anginal patients for surgery, one of the most important being pre-operative arteriography. Different risks for angina patients exist, depending on the anatomic distribution of the coronary disease. Webster, *et al*<sup>13</sup> followed 469 patients seen prior to CAB surgery

From the Department of Surgery, Queen's Medical Center. Professor of Surgery, University of Hawaii School of Medicine.  
Accepted for publication June 1, 1973.



for six to 11 years. Yearly attrition was 3.3%, 6.6% and 10.0% for one-, two- and three-vessel disease. A yearly attrition rate of 2.3% existed for isolated right coronary stenosis, compared with 4.0% for single left anterior descending lesions. The lethal outlook for main left coronary lesion is well documented.<sup>14</sup> Experimental evidence suggests increased risk of fibrillation after occlusion of LAD lesions in patients with an LAD extending into the posterior interventricular groove.<sup>15</sup> Finally, circumflex occlusion in a small number of patients (33) was not associated with any mortality in patients under age 50. Slagle *et al*<sup>16</sup> have reported similar information of attrition rates from angiographically documented coronary disease.

#### *Pre-Infarction Angina*

Several groups report excellent results in treatment of patients with pre-infarction angina. Here again, however, the exact definition of preinfarction angina varies from center to center. The syndrome itself has been variously named unstable angina, crescendo angina and impending myocardial infarction. In general, the term refers to typical anginal pains, lasting longer than 30 minutes, occurring at rest and with increasing frequency. Q-wave changes on electrocardiogram and elevation in serum enzymes (CPK, SGOT, LDH) are not seen.

Pre-infarction angina as originally described by Vakil<sup>17</sup> and Wood<sup>18</sup> carries a high risk of myocardial infarction in the two to three months after the onset of symptoms, ranging from 25% to 41%. Considering the group of patients as a whole, of those that survive the initial two- to six-month period of pre-infarction angina, one-third are dead within five years, one-third have recurrent coronary episodes and a third remain relatively well. With the advent of coronary care units and more accurate diagnostic assessment (eg, serum enzymes), infarction rate may be as low as 7% with a 1% mortality.<sup>19</sup>

Considering all available evidence, it appears that the patients with pre-infarction angina who are at greatest risk are those who continue to have angina inspite of hospitalization and bed rest. The use of anti-coagulants remains controversial.<sup>20</sup>

The decision to perform coronary angiography and to contemplate CAB must still rest on clinical assessment of the patient. As will be seen under surgical results in a later section, results of CAB in patients with pre-infarction angina appear to justify surgical intervention in patients not responding to conservative therapy.

#### *Congestive Heart Failure (CHF)*

CAB in treatment of patients with advanced

Congestive Heart Failure remains controversial. Several groups report favorable results.<sup>21</sup> More recent data indicates a significantly increased mortality in patients with CHF.<sup>22</sup> Furthermore, significant improvement post-operatively is noted in only 30-50% of survivors.<sup>3, 22</sup> Oldham and Associates,<sup>23</sup> in studying risk factors in CAB surgery, have noted significantly increased mortality in patients with left ventricular endiastolic pressure greater than 18 mm Hg, an arteriovenous oxygen difference of over 6 vol.%, an ejection fraction of less than 25%, dyskinesia of left ventricular contraction or mitral insufficiency. These risk factors are concomitants of CHF. Generally, results with treatment here remain disappointing.

#### *Acute Myocardial Infarction (AMI)*

Surgical therapy of Acute Myocardial Infarction was initially limited to patients with cardiogenic shock. Sanders *et al*<sup>24</sup> have treated patients with cardiogenic shock by circulatory assistance with intra-aortic balloon pumping with a 20-30% survival. By selecting patients who deteriorated with balloon pumping or failed to improve after 24 hours, they have increased the salvage rate to 40% with CAB. They continue to advocate circulatory support as the initial step in treatment, however.

More recent reports in several small series indicate more favorable salvage rates with acute CAB in the treatment of cardiogenic shock. Cohn, *et al*<sup>25</sup> report eight patients with AMI during coronary angiography all of whom survived emergency CAB. Keon, *et al*<sup>26</sup> had 11 survivors of 15 emergency CAB procedures in patients with AMI and cardiogenic shock (8 patients) or persistent arrhythmias with hypotension (7 patients). The Cleveland Clinic Group<sup>27</sup> has most recently reported 30 patients with AMI treated with CAB with a 6.6% mortality.

Time after onset of shock appears to represent the major factor in survival after CAB for AMI. Of the Cleveland Clinic series, 24 patients had surgery within 10 hours of onset of symptoms.

Recent work in our laboratory on normal baboon hearts with acute coronary ligation indicates significant salvage of myocardium with ligature release as long as four hours following occlusion.<sup>28</sup> This salvage period is likely extended in the human heart with pre-existing coronary disease and already established collateral circulation.

It seems clear that emergency surgery can salvage a significant number of patients with AMI and cardiogenic shock, a condition associated with a 80-90% mortality when treated medically.<sup>29</sup> Success, however, is time dependent and requires a well-coordinated team to set up the bypass, perform emergency coronary arteriography and com-

plete the surgery procedures within a few hours of the onset of symptoms.

Complications of AMI including papillary muscle rupture, aortic dissection and ventricular septal defect have all been treated surgically by a number of different groups.<sup>30</sup> Though mortality rate in these patients remains high (30-50%), results are still clearly superior to non-surgical therapy.

#### *Anatomic Lesions Alone*

CAB is currently being employed in some centers on the basis of angiographic demonstration of an anatomic abnormality alone. Loop stated, in discussion of a paper at the American Heart Association meeting in Dallas, that the indication for CAB at the Cleveland Clinic was the presence of a 75% or greater obstruction of one or more coronary arteries, regardless of the presence or absence of signs or symptoms of coronary artery disease.<sup>31</sup>

Obviously, most of these patients have had some symptoms suggesting coronary disease to initiate referral for arteriography. Nevertheless, many have only a questionable history of an old infarct or other vague, possible unrelated symptoms which precipitated the study. The inference can be made that CAB significantly influences the natural history of coronary artery disease and will significantly reduce the risk of a fatal myocardial infarct at a later date. This point will be considered in greater detail in the discussion.

#### **Operative Procedures**

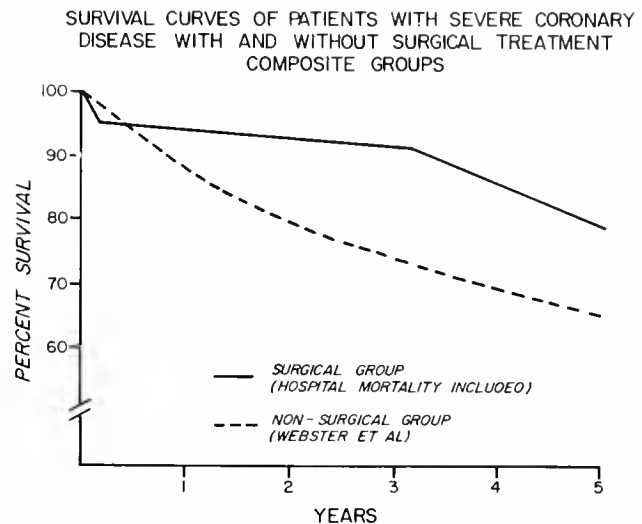
Currently employed surgical therapy of coronary artery disease includes the following procedures:

1. Coronary Artery Bypass (CAB) with:
  - a. Saphenous vein graft (SVG)
  - b. Internal mammary artery (IMA)
  - c. Endarterectomy with either of the above.
2. Internal Mammary Artery Implant
3. Treatment of Complications of AMI with or without CAB
  - a. Infarctectomy
  - b. Mitral valve replacement for papillary muscle rupture
  - c. Ventricular septal defect (VSD) repair
  - d. Resection of ventricular aneurysm.

#### *1. Coronary Artery Bypass:*

Saphenous vein bypass has been employed in the vast majority of cases (Fig. 1). It is estimated that over 50,000 SVG's were performed last year alone. Graft patency rates at one to two months run 90% and at a year, 75-85%.<sup>9, 32</sup> Closure of vein grafts during the interval between one and two years are unusual.<sup>9, 33</sup> It appears that saphenous vein grafts in the heart behave like those

FIG. 1.—Graph taken from data by Sheldon et al comparing survival in two groups of angina patients, one treated surgically and the other medically.



in the lower extremities with most graft closures occurring in the first year, primarily due to technical failures.<sup>34</sup>

Recently, three series utilizing internal mammary to coronary anastomosis have demonstrated a dramatically improved patency rate with IMA.<sup>31, 35, 36</sup>

Endarterectomy of diffusely diseased or secluded coronary vessels has now been employed by several groups in conjunction with CAB.<sup>4, 37, 38</sup> Endarterectomy can be performed either mechanically or with the aid of gas dissection using carbon dioxide. Either method seems acceptable, assuming careful attention is given to the technical aspects of the procedure. The principle advantage of endarterectomy is that it extends the capability of CAB surgery to patients with diffuse distal coronary disease unsuitable for CAB alone.

#### *2. IMA Implants (Vineberg):*

Implantation of the IMA into ischemic myocardium has been clearly demonstrated to supply nutrient myocardial blood flow. However, new blood supply requires three- to four-month post-operative interval for collateral IMA-coronary anastomotic growth. The lack of immediate benefit, the risk of the operative procedure and the failure of 50% of the IMA implants to develop significant coronary anastomosis have relegated this procedure to one of historical significance. An unusual patient with no suitable coronary for anastomosis should possibly still be considered for IMA implant but the procedure will now only rarely find clinical application.

#### *3. Complications of AMI:*

Treatment of complications is generally performed in conjunction with infarctectomy, VSD repair or mitral valve replacement for ruptured papillary muscle. A significant technical advance



in treatment of VSD has been the use of left ventriculotomy and excision of infarcted muscle to provide access to the septal defect. This innovation has resulted in a 50% success rate for what was formerly an almost uniformly fatal complication.<sup>30</sup>

### Operative Mortality

Operative mortality varies considerably among centers, ranging from less than 1% to 10.5% (Table 1). Factors which seem most significantly to influence mortality include the clinical experience of the surgical team and the presence or absence of depressed left ventricular function.<sup>23, 39, 40</sup>

TABLE 1.—Survival data following coronary artery bypass.

	# PTS.	OP MORTALITY	LATE MORTALITY (TO 1 YR.)	GRAFT PATENCY 1 YR.
<i>Saphenous Vein</i>				
Collins <sup>(55)</sup>	107	0.8%	3%	
Ankeney <sup>(56)</sup>	150	2.0%	4%	
Cooley <sup>(4)</sup>	939	6.4%	3%	
Oldham <sup>(23)</sup>	276	10.5%		
Ruel <sup>(3)</sup>	1,222	5.2%	1.2%	85%
Sheldon <sup>(33)</sup>	1,000	4%	2.3%	82%
Janke <sup>(57)</sup>	187	1%	....	89%
Spencer <sup>(20)</sup>	200	9%	....	
<i>IMA</i>				
Green <sup>(35)</sup>	165	7.7%	0	97%
Loop <sup>(31)</sup>	150	0.7%	..	96%
Suzuki <sup>(34)</sup>	41	5.0%	0	98%
<i>With Endarterectomy</i>				
Groves <sup>(37)</sup>	125	1.2%	0	77%
Urschel <sup>(38)</sup>	35	6.0%	0	90%
Cooley <sup>(4)</sup>	384	8.8%	..	....

The concomitant use of endarterectomy appears to increase operative risk slightly. Endarterectomy, however, is reserved for patients with diffusely stenotic or completely occluded vessels in which CAB would be otherwise impossible. In this respect, the use of endarterectomy can significantly extend the use of CAB to many more all patients with coronary artery disease.

Nearly all large series report improving surgical mortality with increasing surgical experience.<sup>1, 3, 4</sup> Currently, an operative mortality of less than 5% is expected in patients with extensive coronary disease but without severe ventricular dysfunction.

Myocardial infarction is the most frequent cause of death following CAB surgery. Guiney<sup>12</sup> and Brewer<sup>14</sup> report myocardial infarction in 29% and 20% respectively of patients undergoing CAB. Criteria for diagnosis of MI in the post-operative data have been conservative because of equivocal results in interpreting serum enzymes and ECG changes in any post-operative state. They include only elevation of CPK and LDH cardiac-specific isoenzyme fractions<sup>42</sup> and the appearance of new Q-waves.<sup>41</sup> Since several reports indicate early CAB patency of well over 90%, it is impossible to incriminate graft occlusion in production of

20+ % incidence of intra-operative myocardial infarction. Furthermore, significant deterioration in ventricular contractility is unusual in patients with patent CAB,<sup>43</sup> indicating that infarcts (if that's what these changes represent) are small and well controlled. Other authors report a much lower incidence of MI following CAB ranging from 4 to 6%.<sup>3, 44</sup> Nevertheless, that fact that infarcts do occur with some frequency is unequivocal and requires careful attention to intra-operative detail and careful post-operative observation.

Pre-infarction angina is now accepted in many centers as an absolute indication for emergency CAB. Mortality rates from 0 to 8.3% (Table 2) indicate that the risks in these patients are the same or less than other patients undergoing CAB.

TABLE 2.—Pre-infarction angina.

	# PTS.	OP MORTALITY	LATE MORTALITY	GRAFT PATENCY (1 YR.)
Lambert <sup>(58)</sup>	57	5.3%	0	0
Mattioff <sup>(59)</sup>	36	8.3%	0	..
Smullens <sup>(40)</sup>	10	0%	..	..
Favalaro <sup>(61)</sup>	23	0%	..	..
Janke <sup>(57)</sup>	23	0%	..	89%
Auer <sup>(62)</sup>	41	0%	0	100%

Extensive medical literature documents carefully the natural history of pre-infarction angina treated medically.<sup>17-20, 45, 46</sup> Though anticoagulation appears to reduce the incidence of acute myocardial infarction in these patients,<sup>47</sup> the reported one-year mortality of 18% and five-year mortality of 33-39% is clearly higher than would be expected after CAB surgery.<sup>46</sup> Based on current data, the presence of pre-infarction angina is a strong indication for coronary arteriography and coronary artery bypass surgery.

Acute myocardial infarction remains a controversial issue. Mortality rates, ranging from 0 to 29% are surprisingly low (Table 3). Many of the reported series have been in acute myocardial infarction complicating coronary arteriography.

TABLE 3.—Acute myocardial infarction.

	# PTS.	HOSPITAL MORTALITY	LATE MORTALITY
Sanders <sup>(24)</sup>	14	67%	..
Cheanvechai <sup>(27)</sup>	30	6.6%	0
Reul <sup>(63)</sup>	17	29%	..
Smullens <sup>(60)</sup>	14	14%	..
Cohn <sup>(25)</sup>	80	0%	..
Keon <sup>(26)</sup>	15	20%	7%

Here the time sequence is ideal for successful intervention. The real controversy concerns acute myocardial infarction with deteriorating hemodynamic status or frank shock in which mortality with medical therapy is 80-90%.

Cheanvechai *et al*<sup>27</sup> indicate that in their group, usually operated on within 4 to 10 hours of the onset of symptoms, remarkably good surgical results are obtained (mortality 6.6%).

The role of infarctectomy remains poorly defined. Most groups have avoided infarctectomy when possible, as some of the acute ischemic marginal zone of the infarcts will regain function with revascularization, and mortality with this procedure has remained uniformly high. The key issue here appears to be the interval between onset of symptoms and surgical intervention. This requires an exceptional practical team of cardiologists and surgeons, geared to performing both emergency angiography and emergency surgery. Based on the results gathered here, it appears that all centers performing CAB should consider the necessity of providing this capability in the near future.

The surgical treatment of patients with angina and marked reduction in left ventricular function remains discouraging. In most instances, extensive myocardial damage precludes significant clinical improvement inspite of successful bypass surgery.<sup>22</sup> Furthermore, the limited myocardial reserve makes the operation itself excessively hazardous. The one exception to this is in patients with ventricular aneurysm in whom aneurysm resection allows efficient function of the remaining normal myocardium.

### Long-Term Results

Long-term results can be divided into four categories:

1. Symptomatic Evaluation (subjective)
2. Vein Patency
3. Functional Improvement
4. Survival.

#### 1. Symptomatic Evaluation:

Inspite of a shift toward more liberal indications for CAB surgery, virtually all series quoted herein are remarkably similar in that about 80% of all patients are in New York Heart Association Class III or Class IV. Complete relief of symptoms or significant improvement occurs in from 80-98% of patients undergoing CAB surgery.<sup>3, 11, 48, 49</sup> Matloff *et al.*<sup>50</sup> in a clinical and angiographic study one year after bypass surgery, demonstrated that the clinical response of angina pectoris to direct coronary surgery correlates significantly with surgical success as defined by graft patency. Similarly, treadmill testing one to three years post-surgery has shown improved exercise performance in nearly all patients with one or more functioning grafts.<sup>49</sup> Bartel *et al.*<sup>11</sup> have concluded from similar treadmill exercise testing in 92 patients that:

- A. The dramatic relief of angina post-operatively can be sustained objectively by increased exercise tolerance and conversion from positive to negative tests.
- B. Patients with an intra-operative myocardial

infarction had a low incidence of positive post-operative treadmill testing.

- C. Subjective symptoms of angina are frequently absent during myocardial ischemia post-operatively, emphasizing the importance of exercise testing in evaluating clinical results.

#### 2. Vein Patency:

Saphenous vein patency following CAB is somewhat lower than might be expected from the improvement in clinical symptoms. One year patency rates run between 75-85%. Flemma and Co-workers<sup>9</sup> studied a series of 365 patients angiographically 2 weeks to 32 months post-operatively. Early vein closure (less than 2 months) occurred in 7% and were felt to be secondary to technical errors. Patency remained 91% in patients studied between 13 and 32 months post-operatively. Finally, Flemma<sup>9</sup> and Sheldon<sup>33</sup> have documented a yearly attrition rate of only 1-2% in grafts remaining patent beyond a year for up to 4 years post-operatively.

The 20% one-year failure rate has led several groups to look for other methods of improving this result. As a consequence, internal mammary (IMA) coronary artery bypass has been used by several groups, notably Green,<sup>35</sup> Loop<sup>31</sup> and Suzuki,<sup>36</sup> as an alternative to saphenous vein. Published one year patency rates of 97-99% indicate that this procedure is clearly superior to saphenous vein graft for CAB. Technical limitations in the applicability of IMA bypass (ie, limit of two IMA's and limited length) will mean that IMA grafting cannot completely supplant saphenous vein grafts for CAB. Nevertheless, when technically feasible, IMA bypass is clearly the procedure of choice and when technically feasible is the preferred bypass procedure in our patients.

Graft patency in patients, when combined with endarterectomy, is approximately the same as bypass graft alone. The largest series of combined endarterectomy and CAB report late patency rate of 77-99%.<sup>4, 37, 38</sup>

CAB in conjunction with aneurysm resection, valve replacement or VSD repair are no different, in surviving patients, than CAB alone.

#### 3. Functional Improvement:

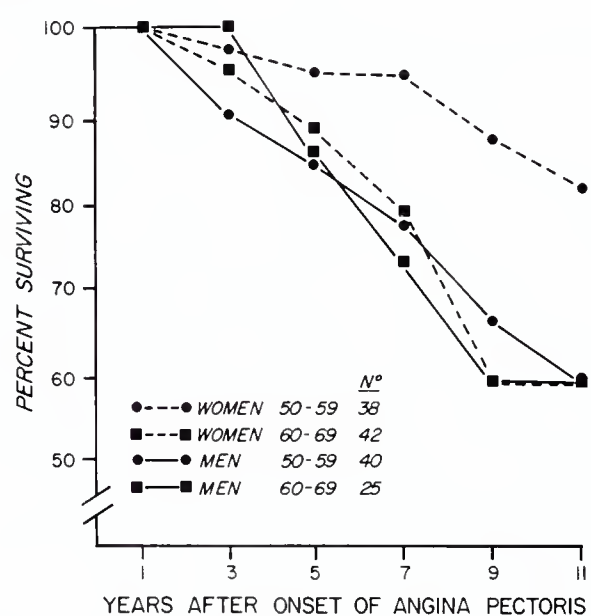
Evaluation of LV function has shown significant improvement in several parameters of LV function following successful CAB.<sup>12, 49, 51-53</sup> Indices used for studying LV function include left ventricular and diastolic pressure, first derivative of LV pressure (aP/dt), myocardial A-V O<sub>2</sub> difference<sup>12</sup> and systolic ejection fraction (SEF). SEF appears to be the most useful index of ventricular function, being the most sensitive indication of improved function and correlating most closely with graft closure.<sup>52</sup>



Survival:

Incontrovertible evidence of increased patient longevity following CAB requires a double-blind controlled study, randomizing patients selected for surgery into medically treated and surgically treated groups. Sheldon<sup>33</sup> has reported a careful analysis of two comparable but non-paired groups of patients, one treated medically and the other surgically. The medically treated group consists of 469 patients treated prior to CAB but who fit the current criteria for CAB. These are compared with a group of 1,000 consecutive patients treated with CAB. Follow-up of the 1,000 surgical patients varied from 22 months to 5 years. Including the initial surgical mortality, significant reduction in the annual attrition rate was noted in the surgical group (4.1%) when compared with the medically treated group (6.8%) (Fig. 2). Long-

FIG. 2.—Data from the prospective Framingham Study comparing mortality rates in patients following onset of angina.



term graft patency was 84.2%. Recent data from the Framingham Study on the natural history of angina pectoris<sup>53</sup> and similar information on myocardial infarction from Frank<sup>54</sup> (Table 4) supports the high morbidity and mortality associated with the natural history of coronary artery disease.

Discussion

From the foregoing discussion, it appears evident that coronary artery bypass surgery:

TABLE 4.—New York Health Department Mortality Statistics in patient following acute myocardial infarction.

	MEN	WOMEN
Total No. of patients with first MI*	882	172
% dead in first month	36.1%	37.2%
% dead before hospitalization	24.9%	24.4%
% dead during hospitalization	11.2%	12.8%
% dead after first month to 5 years	13.7%	10.2%
% total 5-year mortality	49.8%	47.4%
% 5-year survivors	50.2%	52.6%

\* All % figures based on these totals.

1. Relieves angina in over 90% of patients,
2. Provides a new source of blood supply with 80+ % chance of long-term patency (results with internal mammary bypass indicate this can be extended to well over 90% ),
3. Improves myocardial functional capacity,
4. Is technically feasible in over 90% of patients with coronary disease and, with the advent of gas endarterectomy, this will approach 100% ,
5. Probably improves longevity in many patients with coronary artery disease,
6. Can be performed with a mortality of less than 5% and in uncomplicated angina, patient's surgical risk should be less than 2% .

Based on this information, we currently advocate the following criteria for operability:

1. Severe angina pectoris which interferes with day-to-day living habits,
2. Pre-infarction angina,
3. Certain patients with anatomic lesions likely to increase the risk of sudden death, ie, proximal left and LAD lesion,
4. Acute myocardial infarction occurring in the cath lab, or unstable infarction or cardiogenic shock less than 12 hours from the onset of symptoms,
5. Complications of myocardial infarction, including ventricular rupture, ventricular aneurysm, ventricular septal defect and ruptured papillary muscle. Delay in therapy here may make surgical risk prohibitively high.

Summary

Information from the literature on surgical treatment of coronary artery disease is compiled and discussed. Indications for surgery are outlined and expected results defined.

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# Whiplash: Fact, Fantasy or Fakery

MAURICE W. NICHOLSON, M.D., *Honolulu*

**T**HE TERM "whiplash," first introduced in 1953 by Gay and Abbott,<sup>1</sup> is usually applied to injuries of the cervical spine sustained in a rear-end automobile collision. This type of injury is very common in Hawaii.

Reviewing many cases referred from other physicians, makes it apparent that there is still considerable confusion and doubt as to the treatment of this syndrome and indeed as to the validity of the symptoms that these patients have.

Many of the patients have been treated by another physician and it becomes apparent from the patient's comments and obvious hostility that they have the impression their primary physician does not believe their symptoms. This is a valid feeling on the part of the patient as there are many physicians who feel that patients with prolonged neck pain following a rear-end automobile accident are either malingering, hypochondriacal or building up a case for litigation. This feeling is further reinforced in the physician's mind by his inability to demonstrate any objective findings to correlate with the numerous symptoms voiced by the patient. A small percentage of patients may have ulterior motives in their prolonged symptomatology; however, the vast majority are honest individuals who have valid symptoms which are as frustrating to them as to their treating physician. MacNab<sup>2</sup> in 1964 reported that of 145 patients who had settled their litigation two years or more previously, 121 still complained of pain.

## Mechanism of Injury

The patient is usually the driver or passenger in the front seat of a car which is stopped or almost stopped when it is hit from the rear by another vehicle. The force throws the body of the victim forward and the head and neck are snapped backward and then secondarily thrown into extreme forward flexion. The range of flexion is stopped

close to the normal by impact of the chin on the chest. Extension, however, is not restricted close to its normal range, as there is often no head rest behind the patient and the back does not restrain extreme extension. This can be demonstrated to one's own self by flexing and extending their neck. It becomes obvious that the chest prevents extreme flexion whereas there is no anatomical structure other than the neck itself to prevent forced extreme extension.

## Pathology

The principal injury in a typical "whiplash" appears to be a sprain. The tissues involved are the ligaments, tendinous attachments, and joint capsules, as well as the numerous small muscles attached to the cervical spine. The degree of injury can vary from a slight strain involving tearing of a few fibers and ligaments to a severe strain with disruption of many of the musculo-ligamentous structures in the neck.

## Symptoms

The most common symptoms are pain in the cervical and suprascapular areas, stiffness, headache, pain in the interscapular area, pain in the anterior neck area and less commonly, dizziness, ringing in the ear, blurring of vision, heaviness of the arms, and occasionally tingling and paresthesias in the arms.

Many patients will complain of pain immediately following impact. However, a large percentage will not complain of pain for hours, or even several days, following the accident. It was very confusing to me when I first started practice to see patients who had no symptoms up to 72 hours following a rear-end auto accident. However, after seeing many patients whose symptoms were delayed, and after reading many reports of the same phenomenon, I am convinced that this is true of this syndrome in many cases.

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An analysis of 50 patients (Table 1) shows the variability in the time of the onset of pain.

TABLE 1.—Time interval between accident and symptoms.

	MEN	WOMEN	TOTAL
Immediate	6	12	18
Within 6 hours	4	11	15
6 to 25 hours	2	6	8
24 to 48 hours	2	4	6
48 to 72 hours	1	2	3
Totals	15	35	50

The degree of injury is related to several variables: the velocity of the impacting vehicle, the degree of relaxation of the patient at the time of impact and the position of the head and neck at the time of impact. For example; a patient with the head and neck slightly flexed in a relaxed position will sustain a more severe injury than a patient who is braced with the head and neck erect at the time of impact.

Initial Treatment

These patients should be examined thoroughly and x-rays of the cervical spine should be obtained to rule out any possible fracture or subluxation. As with any sprain, rest is indicated and a cervical collar should be worn consistently for a week or two. Analgesics, muscle relaxants, and sleeping medication should be used as needed. The physician's attitude and what he says to the patient at this initial examination is very important. The patient must be reassured that he does not have a serious injury, and at the same time he must not get the impression that the physician does not believe his symptoms. This can lead to great hostility on the part of the patient.

If the symptoms are very severe, a few days of bed rest, with mild constant traction or a collar, are indicated. Intermittent cervical traction is contraindicated at this stage of an injury: many patients are made worse following this type of treatment.

The majority of patients will have only minimal symptoms at the end of two weeks of the above treatment and they should be encouraged to return to work and to engage in as much normal activity as possible. They should be warned against strenuous activities involving the cervical musculature and they should be forewarned that occasionally they may have some exacerbation of posterior cervical pain, but these exacerbations should become less severe and less frequent with time.

The small percentage of patients who continue to have significant symptoms at the end of two weeks should be reassured and should be placed on a mild neck exercise program and treated with mild analgesics and muscle relaxants. These pa-

tients should be weaned away from the cervical collar so that they do not become fixated on this external appliance, which only serves to remind them of this injury.

Diathermy and mild massage is of value in the early stages of treatment; however, this should be used judiciously and the patient should not be put on a three-times-a-week-to-the-physiotherapist routine for six to nine months. This type of treatment also serves to fixate the patient on his ailment and his life begins to rotate about the treatment of his problem.

If heat affords some benefit to the patient he can be instructed to take a hot bath at home once or twice a day, before and after work. It is important that these patients be placed on an early active exercise program which starts with range of motion exercises and builds up to isometric neck strengthening exercises.

If occipital headaches are a prominent symptom, palpation may reveal mark tenderness over the greater occipital nerves. This secondary occipital neuralgia can be treated with local infiltration of Celestone or Kenalog with a local anesthetic.

Discussion

It has been my experience that patients who have symptoms past one month to six weeks will continue to have symptoms intermittently for many, many months. It is necessary for the physician to continually reassure these patients and to encourage them to be active. The patient can be told that he may *hurt* when he does certain activities, but on the other hand, he will not *harm* himself. This difference must be pointed out to the patient. A patient may have very minimal symptoms for weeks or months and then suddenly may have an acute exacerbation of posterior cervical pain. This patient is not malingering—and I speak from personal experience. Approximately six months after sustaining a rear-end automobile accident and after being almost asymptomatic for six weeks, I had a severe episode of posterior cervical pain while doing surgery which necessitated keeping the head and neck flexed in one position for approximately an hour. This acute exacerbation was much improved after a night of rest and after several days the pain had disappeared once again.

Another patient to believe is the young lady who works in an office or store using a typewriter or adding machine. These people do not do any heavy lifting but the position of having the neck slightly flexed for any prolonged period of time will bring on acute cervical muscle spasm. These people have to be instructed to avoid this position for any prolonged period of time and to periodically extend the neck and perform a range of



motion type exercise to loosen up the muscles. Patients who have prolonged symptoms will often develop a secondary depression and this has to be treated actively when it first appears. Referral to a psychiatrist is occasionally warranted but usually the treating physician can care for this problem with the use of Elavil and reassurance.

Occasionally internal disc ruptures will occur and this should be suspected in the occasional patient who has prolonged symptoms lasting a year or longer. These people may have a normal cervical spine x-ray on first glance, however, flexion and extension studies will show some abnormal motion. Another group of patients who may sus-

tain a disc rupture at the time of accident are those patients who have cervical spondylosis as as evidenced on their initial x-rays. These patients will have narrow disc spaces with bony osteophytes anteriorly and posteriorly. These degenerated cervical spines are more susceptible to the trauma of a flexion-extension injury.

In summary, therefore, the whiplash syndrome is a definite entity requiring active treatment which may be both prolonged and frustrating to the patient and physician. The overwhelming majority of these patients have sustained musculo-ligamentous damage, and only a very small percentage have sustained disc ruptures or nerve damage.

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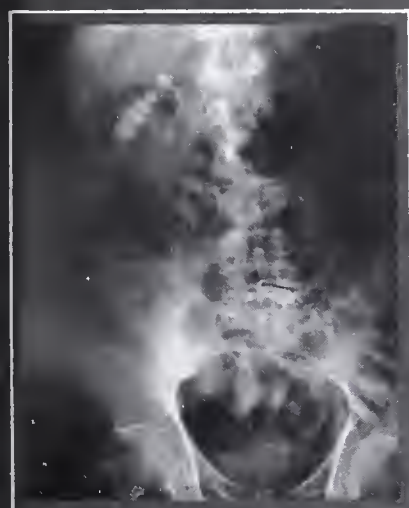
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# Editorials

## PSRO

TO THE EDITOR:

*First let me make it clear that I am speaking now as an individual and not as a representative of any organization.*

*As you will see from the enclosure, the Hawaii Medical Association is attempting to set aside or abridge PSRO legislation. I am opposed to such an endeavor. I think we should be aware of the fact that there is almost certainly a significant percentage of the medical profession which is opposed to the stance of its professional representatives within organized medicine.*

*It has long seemed to me that physicians have the obligation to be prime movers in the effort to have more meaningful and more searching audits of medical practice. It also seems to me that, speaking historically, organized medicine has often been remiss in this endeavor, whence comes the present day pressure from the political arena and from consumers. I would not believe that Public Law 92-603 is a perfect law nor do I believe that perfect legislation can ever be written; however, it is a step in the right direction and I endorse it.*

C. J. STRAEHLEY, M.D.

Chief, Department of Surgery

Chairman, Medical Audit and

Utilization Review Committee

Hawaii Permanente Medical Group, Honolulu

We are wholeheartedly in sympathy with the belief that physicians have the obligation to "have more meaningful and more searching audits of medical practice." We believe that Peer Review programs were and are beginning to achieve this goal, and we believe they should continue and be expanded and strengthened, despite the obvious difficulties being encountered in making valid general statements about the "norms" of either diagnosis or care of any particular illness, let alone any particular patient.

What we do most emphatically *not* believe is that it is right for the federal government to impose such review programs on the medical profession by legislative fiat, with penalties for noncompliance. The establishment of norms or standards should be for educational purposes, not for the purpose of forcing professional care into

federally approved patterns which may or may not be proper for a particular patient at a particular time. We endorse repeal of PSRO legislation for these reasons.

The Oklahoma State Medical Association calls for outright repeal on the grounds that:

- PSRO will cost more money than it can save.
- PSRO will divert thousands of man-hours from patient care to paper work.
- PSRO will set standards that will call for unnecessary medical services and unreasonably increase the cost of care in many individual cases.
- PSRO is misdirected in its assault on a non-problem: length of stay.
- PSRO will compromise confidentiality.
- PSRO will stifle innovations in treatment; deviation from the norm will be dangerous, both legally and medicolegally.

MASSACHUSETTS PHYSICIAN urges that:

1. The entire program should be basically educational and . . . voluntary and all coercive sanctions, such as the provision for a \$5,000 fine, should be removed.

2. Participation in the "profile" system (Sec. 1155) should be only with the full knowledge and specific legal consent of individual physicians and patients.

3. All participants in the data system should have access to their own profiles.

4. . . . curtailment of access to due process (Sec. 1159) and the granting of immunity from civil or criminal liability (Sec. 1167) should be removed.

5. The applications of norms or standards should be purely advisory. . . .

6. In the event that fewer than 50% of practitioners in an area elect to participate, no review structure should be established. . . .

7. A significant physician input should be established wherein practitioners could contribute to policy and legislative decisions. . . .

8. [The law should state that its] intent . . . is purely to enhance the effectiveness of existing voluntary peer review activity.

These modifications are suggested as an alternative to outright repeal, and we find we can endorse them.

H.L.A.

## Your Hawaii Medical Library

The Hawaii Medical Library offers a variety of services of interest to busy physicians with a need for current medical information. By simply calling the Library at 536-9302 you can ask for the following services:

**Medline Searches.** The Library has trained search analysts who will gladly discuss your request for current information in the medical journal literature, properly formulate the search logic, and run a computerized search of the literature the following morning. The cost of this new service is \$3.00 per search up to 35 bibliographic citations, and an additional 10¢ per 12 citations up to 300 citations. For more complete information, consult the February 1974 issue of the HAWAII MEDICAL JOURNAL.

**Union Lists of Journals and Books.** HINOP (Health Information Network of the Pacific) is a federally funded project, under the direction of Mr. Clyde Winters, that promotes regional cooperation among medical libraries in Hawaii and the Trust Territory.\* HINOP has just published

a list of medical journals called PAULMS (Pacific Area Union List of Medical Serials). PAULMS enables the Library to quickly locate any medical journal in the Pacific Basin. HINOP also maintains a union catalog of medical books from 1970 to the present, thus permitting the Library to quickly locate recent medical books anywhere on Oahu.

\* HINOP was originally funded by the Regional Medical Program of Hawaii and is currently funded by the National Library of Medicine.

**Interlibrary Messenger Service.** HINOP sponsors a daily messenger service between the various medical, hospital, and university libraries on Oahu. The union lists of medical journals and books, combined with the daily messenger service, means that current materials can be easily obtained for physicians by the Library, usually within 24-48 hours. Photocopies of journal articles not available locally can be obtained from the UCLA Biomedical Library within 5-7 days. Books not available locally can be borrowed from the UCLA Biomedical Library for the price of airmail postage.

**New Book Lists.** The Library will periodically list its new books in the HAWAII MEDICAL JOURNAL so that physicians will be kept informed of new books available in their particular fields of interest. (See page 182.)

**Book Purchasing Service.** A physician wishing to purchase new medical books for his own use should place his order with Mrs. Madelyn Fisher, Administrative Assistant. She will obtain the desired books from Majors Scientific Books, Inc. of Dallas, Texas, and notify the requesting physician when the books are available. The physician then pays the Library the full purchase price of the book.

Our fondest wish is that Hawaii's physicians will make the fullest possible use of these medical information services.

WALTER W. WALKER  
*Librarian*



## Visiting Physicians

**Jack Remington** from Stanford was the visiting professor of medicine at Queen's in January, and lectured on infectious diseases and immunology, his forte. Herein are samples of his wit and information:

re, lung abscesses: "On rounds, the housestaff contemplate their navels while the infection disseminates."

re, abscesses in general: "Anything red and hot—Stick it" "If staph is suspected, use an antibiotic which is 100% sensitive such as methicillin, oxacillin, etc."

re, sputum culture and sensitivity: "Spit does not give the appropriate answer. . . ." "Sputum has to be purulent. . . . If not, do a transtracheal aspiration."

re, antibiotic use: "Start out with a high and appropriate dose. . . . There has to be an adequate blood level locally. . . ."

re, bacteriodes infections: "There are patients with bacteriodes infections on the wards at anytime which are not recognized. Any infection from the GI tract and bacteriodes in brain, dental, lung, subdiaphragmatic and pelvic abscesses. . . . Bacteriodes stinks like feces. . . . E Coli does not smell."

He recommends the following new antibiotics: Sulfamethazole with Trimethoprim for chronic GU infections; Cefazolin because it gives higher blood levels than cephaloridine and cephalothin; 5-Fluorocytosine (5-FC) for candida and cryptococcus. . . . (Dose: 50-150mg/kg/d q 6 hrs. . . . Effective combination with amphotericin in candida.)

He describes toxoplasmosis as "a tropical disease which 50% of the people in the U.S. have." Tissue cysts persist in CNS, skeletal and heart muscle for the individual's life time . . . becomes a problem in people receiving immunosuppressive therapy. . . . Spread by oocysts excreted by cats and by undercooked meat. Diagnosis by dye test and IgM Fluorescent Antibody. Treatment: 1. paramethadione 2. sulfa 3. Cleomycin. Self limited in most cases and requiring no treatment. Infants are all treated. (Addendum per Gordon: 50-60% of Hawaii's population are infected. The Filipinos have the highest incidence before age 40).

re, Antibiotics: "The future will be antibiotic combinations." "When to stop antibiotics, ie, how long to treat? I don't know—depends on the patient."

He recommends: Gentamicin-Carbenicillin on patients on immunosuppressive therapy; Nafcillin-Gentamicin for solid tumor patients; for meningitis in children—Ampicillin . . . chloromycetin if sensitive to penicillin. Gentamicin is most effective against gram negative infections, esp pseudomonas. Carbenicillin for proteus, esp in GU infections. For enterococcus, use penicillin with ampicillin or streptomycin. For patients on chemotherapeutic agents who develop herpes zoster, use adenosine arabinoside. Those with fungus infections, use amphotericin B with 5 Fluoro-cytosine.

## Miscellany

"Hey Doc! I think my wife has appendicitis."

"It can't be. . . . I remember taking out her appendix a year ago."

"Yeah, but Doc, that was my first wife."

They had met in a bar. After several drinks they retired to her apartment. They stripped and looked at each other. She complained disappointedly, "I didn't realize you had such a small organ. . . ." He retorted, "And I didn't know you were such a large cathedral." (Les Luke's repertoire)

The wahine complained to the railroad office that the trains rumbling near her home caused such a quaking that she continually falls off her bed. The company representative called on her to investigate the validity of her complaints. . . . "When your train goes by, I fall off my bed," she reiterated. When the representative expressed disbelief, she urged, "Why don't you lie down and find out for yourself. . . . The 3:15 is due anytime now." So he lay down and waited. . . . Her husband arrived home just then and demanded, to know what was going on. "Would you believe it," he said lamely, "If I told you I was waiting for a train?" (A Les Luke original)

"Do you know what one hundred and forty-four Pollacks are?" "Gross Ignorance." (A Ben Tom riddle)

## Conference Dialogue

A 71-year-old Hawaiian woman had a radical mastectomy for a Lt breast adenoCa after refusing surgery for over a year. The outer upper quadrant lesion had spread to the mediastinum and she was now scheduled for radiotherapy. No preop bone scan had been done.

Moderator **Noboru Oishi**, trying to stir up debate, asked innocently, "Are the surgeons ready to do excisional biopsy on an outpatient basis and do more work-up (including bonescan) before definitive therapy?"

Chemotherapist **Quint Uy** was positive: "I don't think we would have altered the approach. Surgery is the first string. If the bone scan is positive, I'd give hormonal therapy first . . . for sometimes even massive tumors regress. Then do surgery or radiotherapy."

Pathologist **Grant Stemmerman** added softly, "There were 22 nodes involved."

Surgeon **Glenn Kokame** suggested, "How about a Triple Biopsy. . . . Does the housestaff know what Harbinson's procedure is? A medial quadrant lesion has a 35-40% chance of metastases to internal mammary nodes. If the axillary nodes are positive, then we do a simple mastectomy and followup with radiotherapy. If the nodes are negative, then do a radical."

Fellow surgeon **Bob Oishi** quizzed, "Would you do a radical even with a positive bone scan?"

Glenn: I would do a radical when there is a single isolated metastatic lesion.

Stemmy: Why? There is hematogenous spread. . . .

Glenn: Breast lesions are more benign than renal or lung lesions. **Ed Quinlan** (radio therapist) and I have a case of renal CA with metastasis who is still alive 3 years after radical surgery."

Stemmy: She lived 3 years inspite of the surgery. . . .

Glenn: There are zillions of similar cases. . . . I'll present two cases next session of solitary metastasis disappearing with surgery. . . .

Stemmy: Zillions is an exaggeration. . . . Renal CA is as different as small pox and typhoid. . . . On occasion, metastases will disappear with some tumors like renal carcinoma, choriocarcinoma and melenoma. . . . But breast cancer is a different kettle of fish. . . .

Radiotherapist **Carl Boyer** added, "I've never seen a case or documented case of breast metastasis disappearing after removal of the primary."

Chemotherapist **Paul Conduit** asked, "Has it ever been documented that removal of bulk increases the response to chemotherapy?"

Noboru, chuckling happily at the furor he had caused, asked, "Anyone for a brain scan in the workup?"

# New Members

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ORTHOPEDIC SURGERY



Ed Quinlan said cryptically, "Brain and liver scans used to be the never-never land. . . . But bone scans are different. . . ."

The 80-year-old Japanese man had a choledochoduodenostomy for obstructive jaundice from stones. The surgeon also discovered a 10 cm abdominal aneurysm which he prudently left alone and removed a 2 cm tumor attached to the stomach on a 1 cm pedicle which tumor of low grade).

Radiologist **Don Ikeda** showed some echo scans of the aneurysm and said, "I want to make a pitch for ultrasound. Its the best procedure for abdominal aneurysms. Its another way to follow aneurysms and a very simple procedure. . . ." When someone asked, Don replied, "I don't think you can differentiate a dissecting from a regular aneurysm. . . ."

A 56-year-old Japanese woman with progressive constipation for the past year had managed heretofore with laxatives. Sigmoidoscopy and biopsy reveal rectal carcinoma. She had had gastrectomy for gastric Ca in 1971, a 5-FU course in 1972 for a RUL lesion, and hysterectomy in 1973 for metastatic Ca to the Lt ovary. Liver and lung scans were negative. What to do next?

**Noboru Oishi** started the round: "What is the survival of gastric Ca when there is metastasis?"

Stemmy got the ball rolling: "There is a sex difference. The survival of females is twice that of males. There is a racial difference . . . in the oriental, and esp with Chinese. Then there is host response to tumor. . . . How about giving her chemotherapy with cortisone? The reason these patients die is that they no longer can be nourished when there is extensive serosal spread with fibrosis. Makes one wonder if the response is not immunological."

Everyone joined the melee with surgeons pushing for chemotherapy and chemotherapists recommending surgery. While surgeon **Glenn Kokame** insisted on chemotherapy, chemotherapist **Jack Keenan** and immunotherapist **Eugene Edynak** recommended surgery because of the impending obstruction. Then radiotherapist Ed Quinlan joined in: "The logical approach for this slow growing tumor is to try chemotherapy. If it fails, then we can do radiotherapy. If the tumor regresses, then do a colostomy, but spare the poor woman." Chemotherapist **Paul Conduit** added, "Can I disagree with your sequence? I would suggest radiotherapy first, then chemotherapy." Ed argued, "Chemotherapy is rather benign. I'd hate to do radiotherapy on those serosal nodules. . . ."

Stemmy then summarized: "Everyone wants someone else to do something first. There may be differences, but major surgery is definitely contraindicated. It would be damn close to malpractice. . . ."

Moderator **Noboru Oishi** turned to immunologist **Eugene Edynak** and teased, "Eugene, how much tissue would you need for immunotherapy." Eugene was quite adamant: "If chemotherapy and radiotherapy are not doing anything, you don't expect immunotherapy to do anything, esp with serosal involvement." with his pointed index finger said, "The situation is like drawing smaller and smaller concentric circles around a hole. . . ."

## The Wives' Corner

(Plagiarized from the Jani Gardner book, "365 More Ways to Say I Love You").

See that he laughs at least twice a day (His nurses hate to see a scowling face). . . .

Laugh at his jokes even if you're tired. . . . (If he can't tell a joke, then you tell him one).

Coax your mother to take the kids to a movie so you two can try out the new sleeping bag. . . .

In the middle of a cocktail party say, "I think we should go home and make love" and then do it!

Exercise daily. A limber body enhances love making. (Love making enhances a limber body).

## Everett Earl Black

### A Recognition Dinner

We had accepted **Ben Tom's** dinner invitation to the Coral Ball Room, Sunday, March 24, on blind faith, and when we learned that it was to be a testimonial dinner, it was too late to conjure up a good excuse. Anticipating speech after dreary speech, we dragged our feet all the way of **E.E. Black's** birthday party only to be pleasantly surprised and learned that testimonials can be enjoyable and entertaining if planned carefully. **Will Henderson** promised at the outset, "In keeping with the spirit (whatever spirit he was referring to), all speeches will be of the shortest order" and he kept his word. Interspersed between the gab, song and music by the Halekulani Girls, the Dixie Cats and Hilo Hattie herself, we listened to Rev. Ezra Kanoho give a touching invocation in both Hawaiian and English. "Let us humble ourselves. . . . Oh mighty God, our Heavenly Father. . . . We come to honor E.E. Black on his 85th birthday. . . . We honor him . . . for his lasting monuments . . . for his firm and rigorous leadership . . . for his deep compassion for wife and family . . . for his priceless treasures of charity, hope and love. . . . One day when he approaches Heaven's gates, God would surely say, "Well done, Johnny boy!" The high point of the dinner was when **William Kea** led the audience with his deep baritone in singing, "Happy Birthday, dear Mr. Black." Later we caught fragments of **Will Henderson's** commentary: "In behalf of the 1,200 employees, 'Thank you for being the grand ole man.'" "And from our 700 physicians, 'Mahalo' and thank you very much."

The Contractors Ass'n representative presented **Johnny** with a koa hard hat and punned, "Old generals may just fade away . . . but old contractors just meow with age." Mrs. **Robert Miyahira**, president of the Queen's Hospital Nurses Alumni presented **Johnny** with a plaque commemorating the golden anniversary of the School of Nursing while **Florence Ching** gave **Johnny** a long fond hug and kiss upon presenting him with a Maile lei.

**Will Henderson** took us through a "Sentimental Journey" slide session of **Johnny Black's** role at Queen's and concluded, "The Queen's Medical Center is proud of his 25-years of devoted service."

The stern mien with piercing eyes and square jaw had softened with age. The jowls, baggy lids and thinning dome testified to his 85 years, and he frequently looked down and rubbed his forehead to fight back the tears. . . . But **Johnny**, his voice strong and vibrant as ever, spoke of many things. . . . "Thank you. . . . Thank you very much. . . . You know this is emotional for me. . . . I didn't know so many people were willing to pay for such a dinner. . . . I like my flowers when I can smell 'em (referring to the letters "JOHNNY" blazened in 650 red carnations and the leis drowning his face)." He reminisced briefly about friends past and present. . . . "Some of you are here, but a great many of your ancestors have gone and left me. . . ." He spoke of his career in contracting: "And I began to make some money. . . . You gotta have money to get anywhere in this world." He spoke of Queen's: "Then I came to Queens. . . . You know what a grand group of people you are. . . . It's a great satisfaction to see how these people work together. . . . You know anyone going into a hospital is upset . . . his family is upset. . . . So if we can make his stay a little nicer, he would be happier. . . . We should try. . . ." We understood now why so many were on hand to celebrate **Johnny Black's** birthday dinner. . . . ■



# 123<sup>rd</sup>

## AMA ANNUAL CONVENTION JUNE 22-26, 1974 CHICAGO, McCORMICK PLACE

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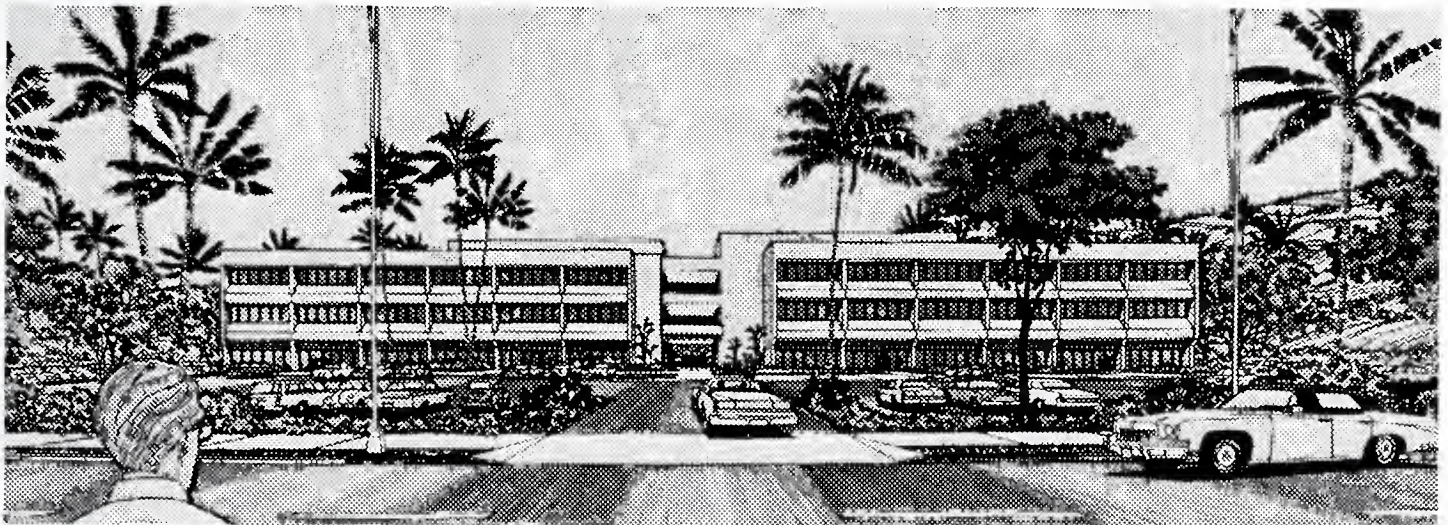
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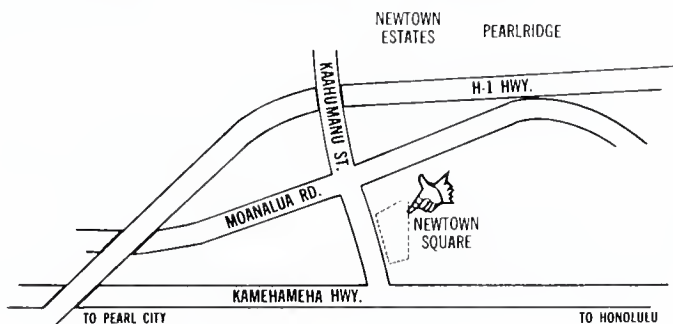
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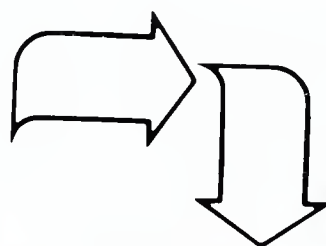
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#### Forearm Injuries

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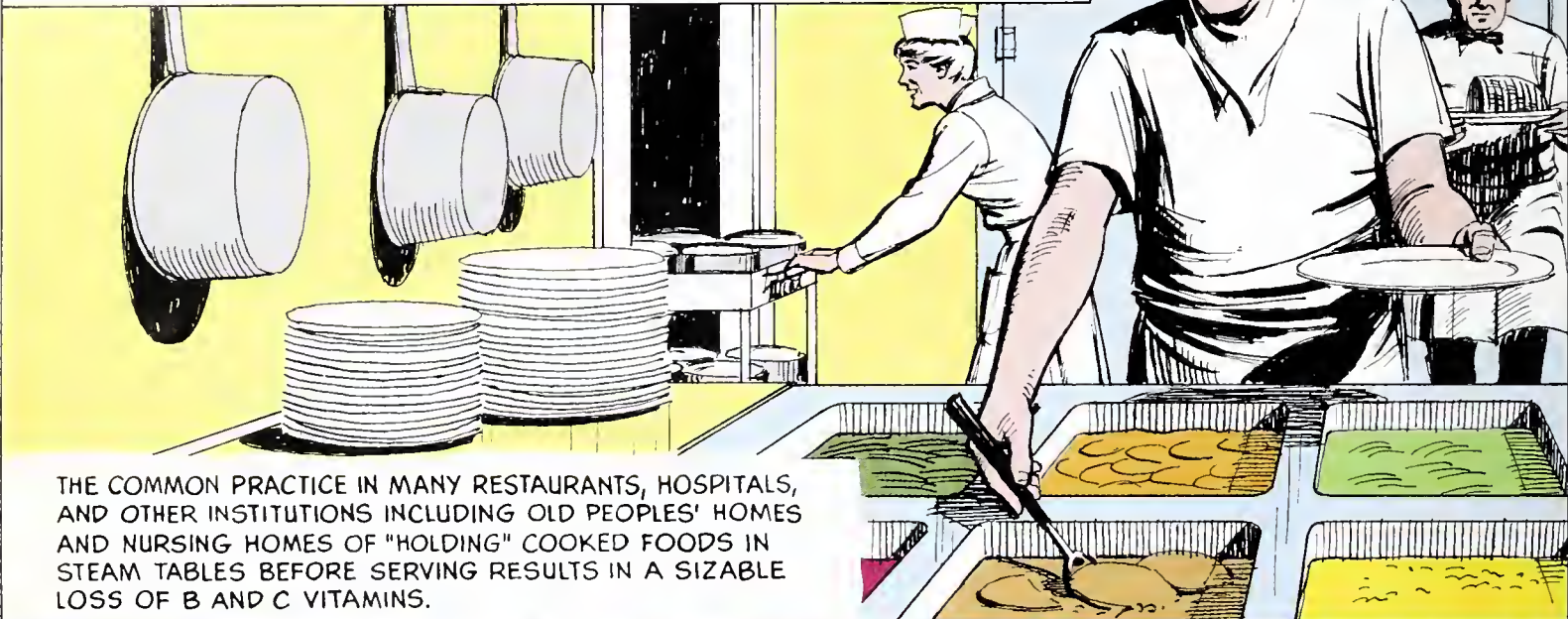
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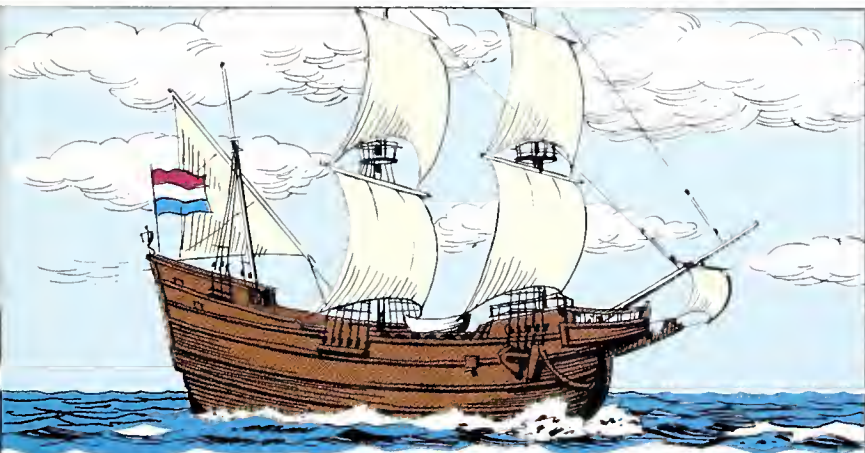
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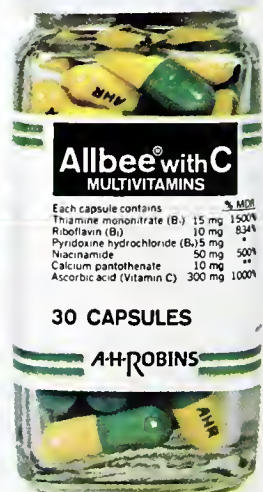


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# Opinion & Dialogue

## Is there a need for a drug compendium?

A drug compendium of the type I envision would fill a definite need for the practicing physician. Such a compendium would give him all the information necessary for using

a drug intelligently, and it would do so in a clear, concise, convenient, objective and balanced fashion.

### What a Compendium Should Contain

I believe the compendium should inform the doctor what a drug will do, when he should use it for what type of patient, for how long, in what dose, what benefits his patient is likely to obtain, the risks involved, and cross-reactions with other drugs.

The information would be based on the package insert and have the same legal status. In fact a complete compendium with complete and current information might even eliminate the necessity

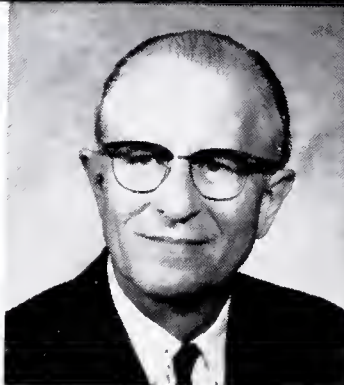
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A drug compendium, or preferably compendia, should, I believe, be private, not federal, in sponsorship. They should contain comprehensive listings of drugs available for prescribing. They should be single, legibly printed volumes of reasonable size, updated quarterly or semiannually and completely revised every year.

### Function of a Compendium

A compendium should furnish the following information on drugs in the following order: indications for use, side effects, adverse drug reactions, contraindications, drug interactions, drug dosage and the dosage forms marketed. Drug prices should not be included because they vary so widely and change rapidly.

No compendium should set forth drugs of choice or discuss relative efficacy. Such questions must be left for the practicing physician to decide, whether on the basis of the medical literature, his own clinical experience, advice of colleagues, information supplied by manufacturers, and so on.

Nor should a compendium undertake to educate the doctor on how to use drugs. Rather, it must be a reference source designed primarily to refresh his memory as to drugs he may not use regularly. It

or a package insert in many instances. This would constitute a substantial saving for the manufacturer.

By a complete compendium, do not mean a volume of prohibitive size. You don't need a book describing 25,000 products with an enormous amount of repetition. Rather, drugs should be arranged by class. Mutually applicable information would be provided, along with brief discussions pinpointing differences in specific drugs of that class. Listings would be cross-indexed in a useful way.

#### **Other Available Documents as Sources of Information**

Existing references such as PDR and the AMA Drug Evaluation are obviously useful but they are incomplete. Either they are not cross-referenced by generic name and do not group drugs with similar characteristics, or they do not list all the available and legally marketed drugs. And some of those omitted may be very useful.

should in no way imply control over the practitioner's prerogatives.

#### **Why Another Compendium?**

A practicable, single-volume compendium cannot, nor is it necessary to, include all drugs on the market today. From my practice of internal medicine for some 15 years, my experience as a consultant, and as a faculty member of four or five medical schools, I would estimate that a doctor uses only 30 to 35 drugs regularly. The 1972 Physicians' Desk Reference, incidentally, contained about 2,500 entries.

As to whether there should be a federal compendium, in my opinion, as stated earlier, the answer is easy—there should *not* be one. The proposal assumes that existing compendia are inadequate. We're not sure of that at all. Whatever its imperfections, the present drug information system in the U.S. is open, multifaceted, pluralistic and extensive. Good compendia exist, as well as other ample sources on drug therapy, ranging from journal literature through AMA Drug Evaluation to company materials. Not all physicians may use such sources as often or as well as they should, but that is the fault of the man, not of the sources.

In any event, rather than pro-

On the other hand, drugs made by more than one supplier, tetracycline for example, may be fully described a dozen times in the same book.

While perhaps PDR could be rearranged and cross-indexed with generics included, and while the AMA Drug Evaluation might also be modified and expanded, I am not sure that the end result would have all the attributes required for a useful compendium. At the same time, you would run the risk of amassing a voluminous and unwieldy tome.

#### **Should Editorial Comments Accompany the Listings?**

Subjective judgments, in my opinion, have no place in a compendium. However, if there is substantial evidence based on a sound body of science concerning relative efficacy of several drugs, certainly that information should be included. The committee of experts compiling and editing a particular section would also have to assess

duce another book, it makes much more sense to work on improving existing compendia, and perhaps they could, as knowledge advances, include more accumulated clinical data and experience, and more information on drug interactions and adverse reactions.

#### **Implications of a Federal Compendium**

Take a hard look at the implications of a federal compendium. It would have the force of law, virtually dictating what drugs to use and how to use them. In effect, it would be a regulatory document with legal or quasi-legal status, posing medical/legal problems similar to those the doctor may now encounter if and when he departs from the provisions of the package insert. A compendium under federal aegis would tend to restrict decisions on drug therapy to one orthodox level—a most dangerous trend for medicine.

#### **New Compendium—A Medical Option**

I detect no ground swell of initiative or support whatsoever for a federal compendium—or, for that matter, for a new compendium of any type. A 1969 PMA survey conducted by Opinion Research Corporation found that only 15 per

and indicate instances where a meaningful difference between drugs is pertinent.

#### **Sponsorship, Compilation and Editing**

Producing a book like this would undoubtedly be difficult and demanding. It would obviously take a great deal of talent and expertise, and would require a varied and experienced group, ranging from writers and editors to highly skilled clinicians and pharmacologists. Style, format and clarity of language would play an important part in determining the usefulness of the book. And it should be updated periodically and completely revised annually.

I have no opinion whether the government or the private sector should sponsor and/or finance the compendium. What is most important is that the compendium be an authoritative, objective and useful source of information for the doctor to have at hand as a ready reference.

cent of those physicians interviewed felt a new compendium was needed. And a large majority did not favor the involvement of the federal government if one were to be created, preferring instead a nongovernmental consortium.

Even if we come to a time when the medical profession itself opts for a new kind of compendium, it should be handled and financed, ideally, outside both government and industry. Final review and editorial authority could be delegated, say, to specialty bodies and medical societies—but above all, *not* the government.

Surely the health care system in the United States has far more vital matters to consider than the extensive cost and effort that would have to go into the preparation and maintenance of a new, monolithic compendium, and especially one bearing the imprimatur of the federal government.

#### **Opinion & Dialogue**

What is your opinion, doctor? We would welcome your comments.

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# What's on your patient's face...

**may be more important than his chief complaint**

Patient P.T.\* seen on 3/29/67 shows typical lesions of moderately severe keratoses. Note residual scarring on ridge of nose from previous cryosurgical and electrosurgical procedures.



Patient P.T.\* seen on 6/12/67, seven weeks after discontinuation of 5% FU cream. Reaction has subsided. Residual scarring not seen except that due to prior surgery. Inflammation has cleared and face is clear of keratotic lesions.

\*Data on file, Hoffmann-La Roche Inc., Nutley, N.J





# The lesions on his face are solar/actinic— so-called "senile" keratoses... and they may be premalignant.

## Solar, actinic or senile keratoses

These lesions may be called by several names, but they usually can be identified by the following characteristics. The typical lesion is flat or slightly elevated, of a brownish or reddish color, papular, dry, rough, adherent and sharply defined. They commonly occur as multiple lesions, chiefly on the exposed portions of the skin.

## Sequence of therapy— selectivity of response

After several days of therapy with Efudex® (fluorouracil), erythema may begin to appear in the area of the lesions; this reaction usually reaches its height of unsightliness and discomfort within two weeks, declining after discontinuation of therapy. This reaction occurs in affected areas. Since the response is so predictable, lesions that do not respond should be biopsied.

## Acceptable results

Treatment with Efudex provides highly favorable cosmetic results. Incidence of scarring is low. This is particularly important with multiple facial lesions. Efudex should be applied with care near the eyes, nose and mouth.

Before prescribing, please consult complete product information, a summary of which follows:

**Indications:** Multiple actinic or solar keratoses.

**Contraindications:** Patients with known hypersensitivity to any of its components.

**Warnings:** If occlusive dressing used, may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

**Precautions:** If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

**Adverse Reactions:** Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

**Dosage and Administration:** Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

**How Supplied:** Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)-aminomethane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.

Cream, 25-Gm tubes—containing 5% fluorouracil in a vanishing cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).



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# This patient's lesions were resolved with

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# The Antacid Analogy



**Indications:** Pro-Banthine is effective as adjunctive therapy in the treatment of peptic ulcer. Dosage must be adjusted to the individual.

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**Warnings:** Patients with severe cardiac disease should be given this medication with caution.

Fever and possibly heat stroke may occur due to anhidrosis.

In theory a curare-like action may occur, with loss of voluntary muscle

control. For such patients prompt and continuing artificial respiration should be applied until the drug effect has been exhausted.

Diarrhea in an ileostomy patient may indicate obstruction, and this possibility should be considered before administering Pro-Banthine.

**Precautions:** Since varying degrees of urinary hesitancy may be evidenced by elderly males with prostatic hypertrophy, such patients should be advised to micturate at the time of taking the medication.

Overdosage should be avoided in patients severely ill with ulcerative colitis.

**Adverse Reactions:** Varying degrees of drying of salivary secretions may

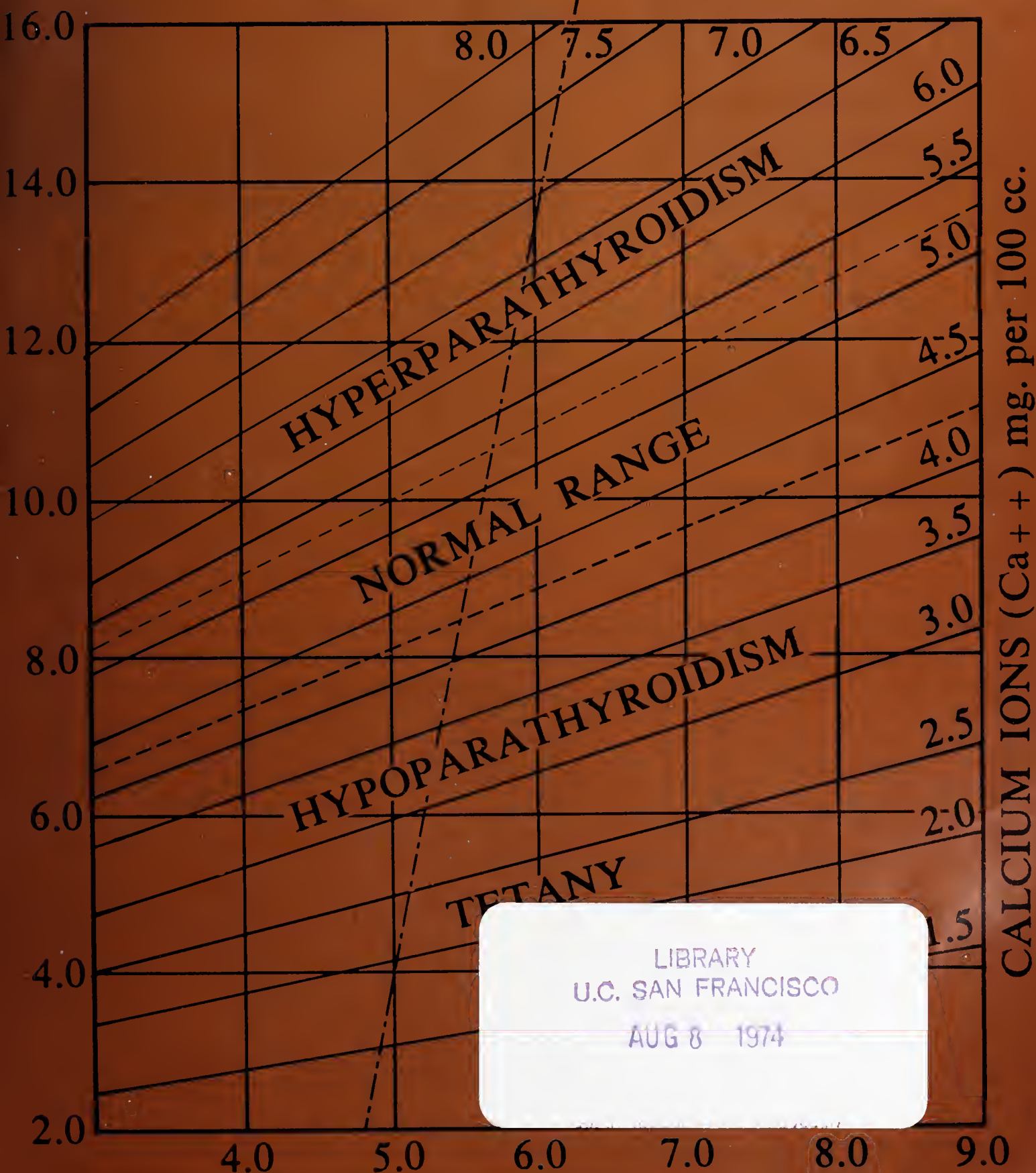


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# HAWAII MEDICAL JOURNAL

VOLUME 33 / NUMBER 6 • JUNE 1974

Calcium more than 50% ionized / less than 50% ionized





**When G.I.  
complaints occur  
in the absence  
of organic findings,  
underlying  
anxiety may be  
one factor**



**The influence of anxiety on gastrointestinal function.** Excessive anxiety and tension can adversely affect the function of any portion of the gastrointestinal system. Complaints are varied, *e.g.* epigastric pressure, heartburn, ulcer-like pain, diarrhea, etc. A vicious circle may develop in which anxiety and G.I. disorders intensify each other.

Prime objectives of total patient therapy include: symptomatic relief, removal of apprehension about organic disease and helping the patient understand how excessive anxiety may trigger physical

---

**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Relief of anxiety and tension occurring alone or accompanying various disease states.

**Contraindications:** Patients with known hypersensitivity to the drug.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

**Precautions:** In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, in combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precaution

complaints. Brief counseling and the utilization of favorable factors in the patient's personality and environment can often provide needed support.

**Antianxiety therapy.** Antianxiety medication may prove a valuable supplement when counseling and reassurance are not sufficient to allay the patient's emotional distress and relieve his anxiety-provoked physical complaints. The agent prescribed should be both clinically effective and generally free from undesirable side effects. Librium (chlordiazepoxide HCl) meets these requirements with a high degree of consistency, and has a wide margin of safety and an excellent record of patient acceptance.

Whenever anxiety is a clinically significant factor, adjunctive Librium is used concomitantly with specific gastrointestinal drugs such as anticholinergic agents. Once anxiety has been reduced to appropriate levels, treatment with Librium should be discontinued.

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adjunctive

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in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

**Adverse Reactions:** Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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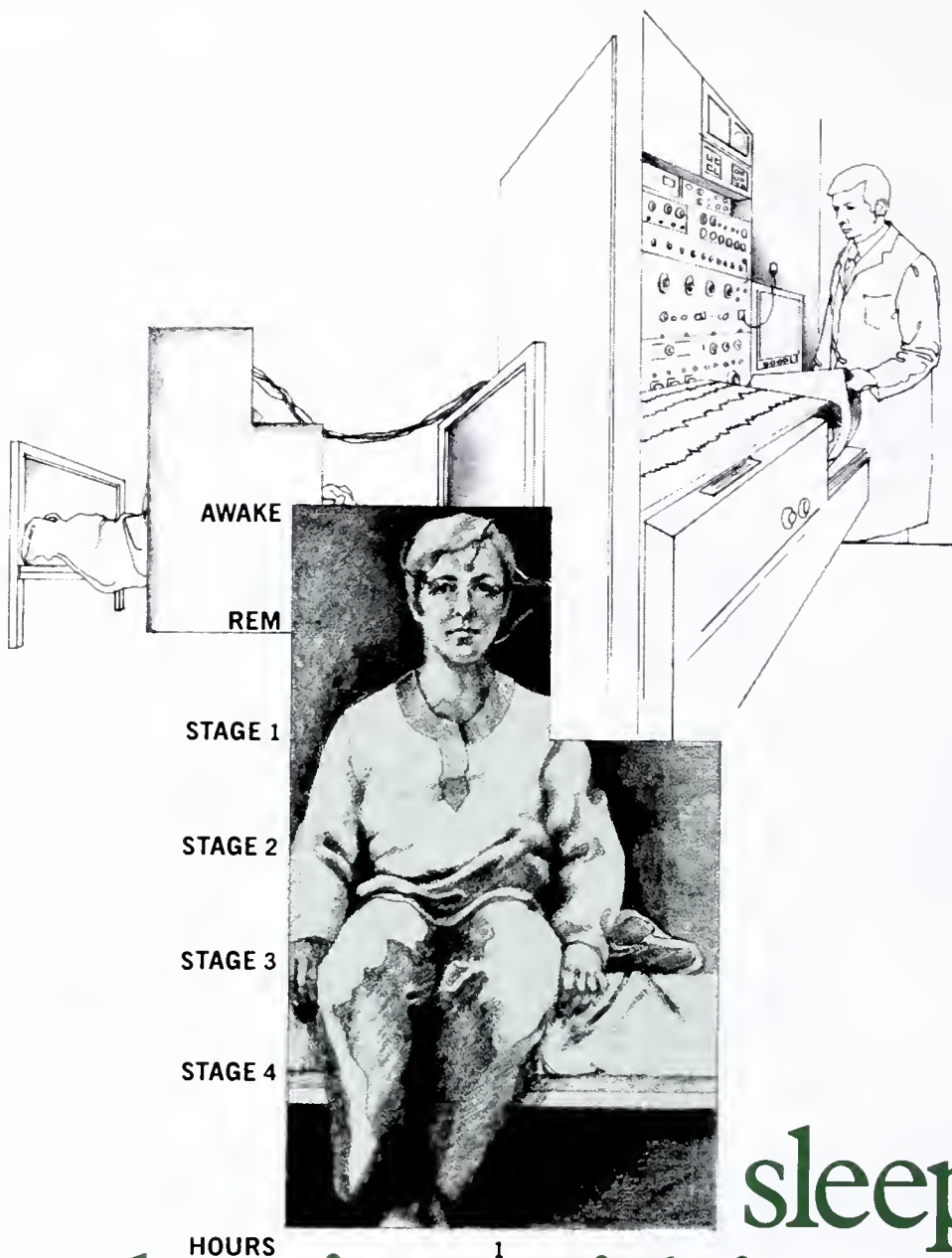
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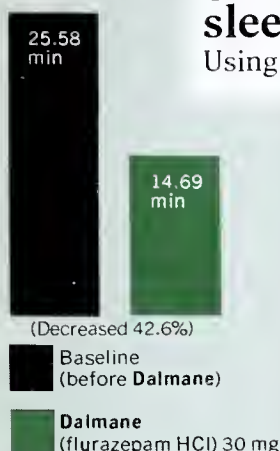


sleep  
begins within  
17 minutes, on average ...  
an initial benefit of

**Dalmane<sup>®</sup>**  
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**22-night clinical study of insomnia patients  
in the sleep research laboratory and at home<sup>1</sup>**

Three insomnia patients selected for difficulty falling asleep were administered Dalmane (flurazepam HCl) 30 mg for 14 consecutive nights. Placebo was given for four nights prior to and four nights after Dalmane. Physiologic tracings on Dalmane nights 1-3 showed sleep induction time averaged 13.90 minutes; on Dalmane nights 12-14, 18.80 minutes. Combined average for the 6 monitored drug nights was 16.35 minutes.<sup>1</sup>

Average Time Required  
to Fall Asleep (4 Studies,  
16 Subjects<sup>2-5</sup>)



## confirmed by clinical studies in four geographically separated sleep research laboratories<sup>2-5</sup>

Using a 14-night protocol involving eight insomniac and eight normal subjects, four studies confirmed the sleep-inducing effectiveness of Dalmane (flurazepam HCl) and the reproducibility of this response. On average, one 30-mg capsule induced sleep within 17 minutes. In all these studies, Dalmane induced sleep rapidly, reduced nighttime awakenings, and provided 7 to 8 hours of sleep without repeating dosage<sup>2-5</sup>

### Dalmane (flurazepam HCl) induces and maintains sleep, with relative safety

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**Indications:** Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

**Contraindications:** Known hypersensitivity to flurazepam HCl.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

**Precautions:** In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

**Adverse Reactions:** Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, e.g., excitement, stimulation and hyperactivity, have also been reported in rare instances.

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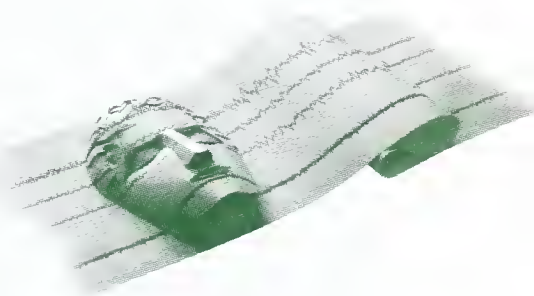
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*Let the medication fit the symptoms . . .*

## A Simplified Guide to the Rational Use of Psychotropic Drugs

RICHARD A. MARKOFF, M.D., J. DAVID KINZIE, M.D., MAX G. BOTTICELLI, M.D., and GEORGE C. BOLIAN, M.D., *Honolulu*

● *A great deal of psychiatric primary care is rendered by non-psychiatric physicians, and considerable use must be made of psychotropic medications in the process. However a number of difficulties attend this area of practice. There are many psychotropic drugs, and it is often hard to differentiate them clearly, in terms of actions and indications. In addition to being somewhat imprecise, psychiatric nosology is sometimes less than ideally relevant to questions of choice of therapeutic agent.*

A PARTICULAR diagnosis, eg, manic-depressive mania, may dictate the choice of a particular drug therapy. In other diagnoses, eg, hysterical personality, the presence or absence of a variable symptom, such as anxiety, may be decisive for drug choice.

The purpose of this paper is to present a relatively simple method for making appropriate choices among psychotropic medications. While inadequate for the full range of psychiatric specialty practice, it may be of value in the context of primary care.

The method grew out of an effort to develop a medical audit of the use of psychotropic drugs in non-psychiatric practice. This was done under the auspices of the Experimental Medical Care Review Organization of Hawaii. It has since been tested as a teaching device with third year medical students and residents in psychiatry at the University of Hawaii School of Medicine.

The authors have not attempted to present a thoroughgoing review of psychopharmacology. Thus, the discussion of drug effects is brief and general. Little attention is given to side-effects or to questions of dosage. The bibliography lists several general references which adequately cover

those omissions.<sup>1, 2, 3, 4, 5</sup> These references also contain full discussions of the positions on drug actions and drug treatment which are stated here in summary form.

It should be emphasized that this paper deals specifically with drug therapy. It cannot be assumed that the indications for the various psychotherapies coincide with indications for psychotropic medications. The fact that no drug treatment may be indicated in a particular clinical situation does not imply that psychotherapy would not be beneficial; nor does an indication for drug therapy preclude the usefulness of psychotherapy.

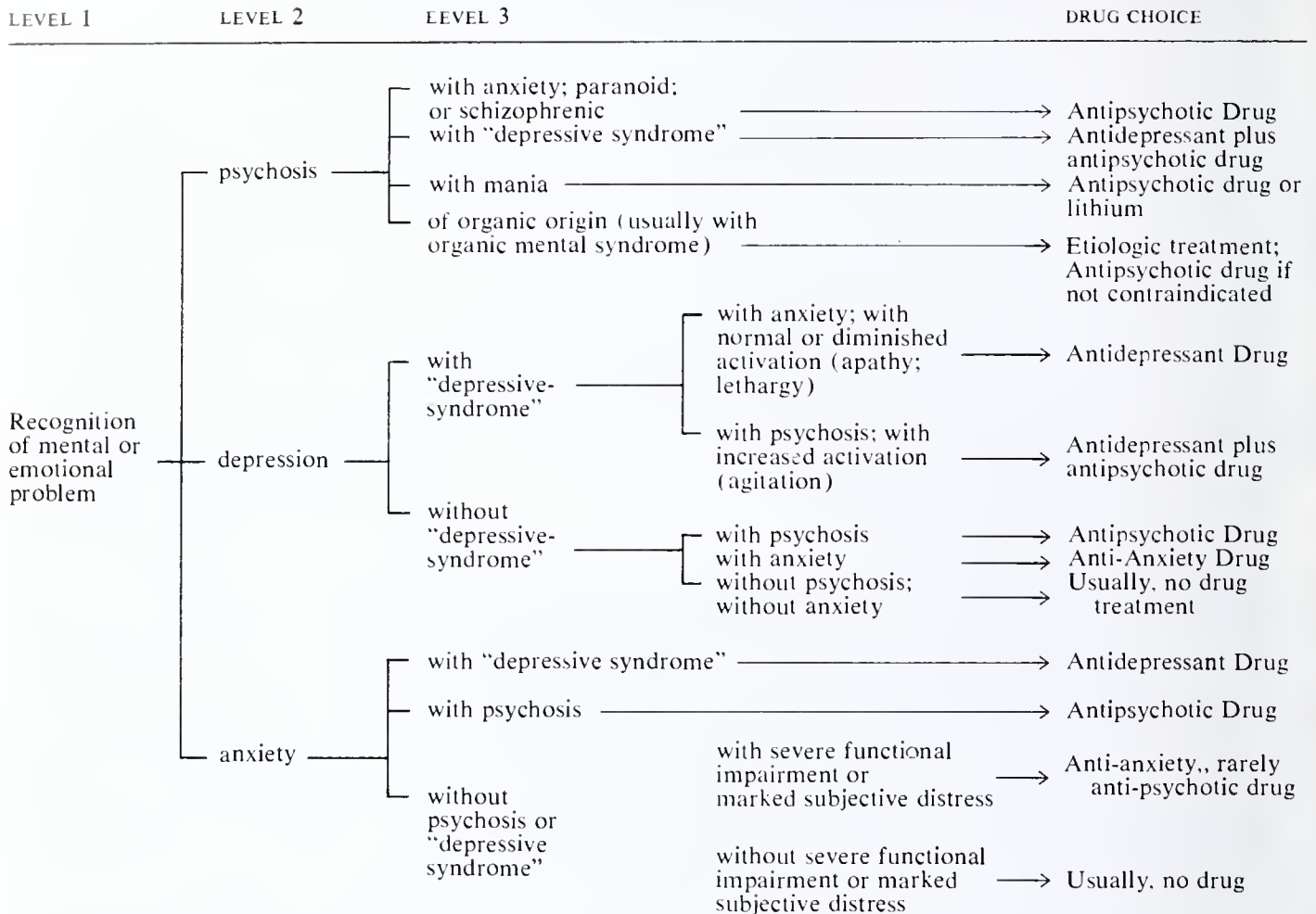
The first essential in arriving at an appropriate choice among psychotropic agents is to establish a diagnosis which is relevant to this question. The method we propose makes use of a flow-sheet (Fig. 1) which diagrams the process by which such diagnoses may be made. It makes explicit the various judgments and decisions which enter into the process, and presents the critical findings upon which they rest. It serves to organize the information obtained from history and examination, and indicate what additional information may be necessary. Finally, it supplies the indicated treatment choice for each diagnostic decision, specifying whether psychotropic drugs should be used; and if so, which classes of drugs should be used.

### General Considerations

The majority of psychotropic drugs which are in general use today may be grouped into three broad categories: anti-psychotic drugs (major tranquilizers; neuroleptics); anti-anxiety drugs (minor tranquilizers) and antidepressants. (Certain agents have been proposed for the treatment of organically-based symptoms of senile or arteriosclerotic brain disease. Since expert opinion is still divided on their efficacy, these drugs will not



FIG. 1.—Flow sheet.



be discussed here). This classification is based upon clinical, rather than chemical or pharmacologic similarity. Thus, even chemically and pharmacologically dissimilar agents, within a given category, tend to be quite similar in their therapeutic effects; and the differences between particular agents are usually differences in side-effects and dosage. It is therefore possible, and most rational, to speak of indications for "an anti-psychotic drug" or "an anti-depressant" rather than for specific drugs, in many cases.

It should also be noted that some overlap exists among the three classes of drugs in therapeutic activity. Thus, the fact that a particular class of drugs is not indicated for some clinical situation seldom implies that it is clearly contraindicated.

The treatment decisions given in the flow-sheet necessarily represent average dicta which may not apply in every case. The patient's history of responses to specific drugs is often an important guide to the modification and individualization of therapy.

### Anti-psychotic Drugs

This clinical category includes phenothiazine derivatives, thioxanthine derivatives, butyrophenone derivatives and rauwolfia alkaloids (Table I). There are other drugs—eg, quinolizidine de-

rivatives, such as tetrabenazine—which are in limited or experimental use only. Lithium carbonate will be discussed here, for convenience, although its clinical indications are so specific that its inclusion does violence to the general principle of class similarity, presented in the preceding section.

TABLE 1.—A partial listing of anti-psychotic drugs.

PHENOTHIAZINES	
Chlorpromazine (Thorazine)	
Fluphenazine (Prolixin)	
Carphenazine (Proketazine)	
Mesoridazine (Serentil)	
Perphenazine (Trilafon)	
Piperacetazine (Quide)	
Prochlorperazine (Compazine)	
Promazine (Sparine)	
Thiopropazate (Dartal)	
Thioridazine (Mellaril)	
Trifluoperazine (Stelazine)	
Trifluopromazine (Vesprin)	
THIOXANTHINES	
Chlorprothixene (Taractan, Solatran)	
Clopenxihax (Sordinol)	
Thiothixene (Navane)	
BUTYROPHENONES	
Haloperidol (Haldol)	
RAUWOLFIA ALKALOIDS	
Reserpine (Serpasil, etc.)	
Rescinnamine (Moderil)	
Desperidine (Harmonyl)	

The anti-psychotic drugs, with the exception of lithium carbonate, are primarily used in the treatment of schizophrenia. However, they may also be employed in the treatment of other psychotic states and in many conditions in which agitation, hyperactivity or impulsiveness are present. A set of defining characteristics for psychosis will be found in the flow-sheet.

The phenothiazine, thioxanthine and butyrophenone drugs differ in milligram—potency, and some of their side-effects vary with milligram—potency. The drugs which are of relatively low potency, eg, chlorpromazine (Thorazine), tend to be more sedative, and are more likely to produce orthostatic hypotension and provoke seizures, than are the highly potent drugs, eg, haloperidol (Haldol). These latter agents, on the other hand, more frequently induce extra-pyramidal reactions. It is perhaps worth emphasizing that sedation is distinct from anti-psychotic activity, and that the sedative, low potency drugs are no more effective in the removal of psychotic symptoms than are the less sedative, high-potency drugs. Nevertheless, this, and other differences in side-effects, may play a part in determining particular drug choices.

The rauwolfia alkaloids are in general less well tolerated than phenothiazines, thioxanthines and butyrophenones. They may provoke significant depression in some patients, in addition to the side-effects common to the other agents. They are not, therefore, usually the drugs of choice, and are seldom used in psychiatric practice today.

Lithium carbonate has limited and specific indications, at present: the treatment of manic-depressive mania, and the prophylaxis of manic-depressive (bipolar) depression. Other indications, eg, the treatment, as opposed to prophylaxis, of manic-depressive depression, cannot yet be considered firmly established.

The general principle of treatment with anti-psychotic drugs is to "titrate" the dose to the patient's symptoms. The symptoms whose disappearance, or alleviation, provides the end-point of the titration include motor agitation, hostility or combativeness, suspiciousness (paranoid attitudes) delusions and hallucinations, and fearfulness. Some idea of the ranges of dosage employed may be helpful: an acute psychotic state in a schizophrenic patient might require between 400 and 2,000 mg of chlorpromazine (Thorazine) per day, over a period of one to four weeks; while 100 to 1,000 mg might suffice for maintenance medication. (Dosage equivalencies among phenothiazine, butyrophenone and thioxanthine drugs can be estimated by comparing the recommended dose-ranges in package inserts, in the PDR, or in Honigfeld & Howard. A useful rule-of-thumb is that the ratio of maximum strength oral forms tends roughly to approximate the dose-equivalency ratio.)

## Anti-anxiety Drugs

This clinical category contains a chemically diverse set of drugs which generally tend to possess—to a varying degree and often in combination—anxiety-relieving, sedative and skeletal muscle—relaxant properties (Table 2). Their general indications lie in the treatment of the neuroses and personality disorders—conditions in which anxiety is often a prominent symptom. Often, however, these disorders involve states of worry and tension, or unpleasant affect, which are difficult to define clearly, but which may be alleviated by "anti-anxiety" drugs.

TABLE 2.—*A partial listing of anti-anxiety drugs (non-barbiturate).*

Chlordiazepoxide (Librium)  
Diazepam (Valium)  
Oxazepam (Serax)  
Hydroxyzine (Vistaril, Atarax)  
Meprobamate (Miltown, Equanil)  
Oxanamide (Quiactin)  
Phenaglycocolol (Ultran)  
Tybamate (Tybatran, Solacen)  
Azacyclonol (Frenquel)  
Acetylcarbromal (Sedamyl)  
Benactyzine (Suavitol)

The benzodiazepine derivatives, chlordiazepoxide (Librium), diazepam (Valium) and oxazepam (Serax), are at present the most widely used drugs of this category. They seem to be reasonably effective in relieving anxiety without undue sedation. Sometimes, however, sedation may be beneficial from the doctor's point of view, or desired by the patient;<sup>6</sup> and in these instances, a long acting barbiturate, such as phenobarbital, may be more useful. Treatment with any of the agents in the anti-anxiety category is entirely symptomatic. Perhaps because indications and specific effects are unclear, placebo responses tend to occur fairly often, and the manner in which the drug is prescribed, the general approach to the patient, and the quality of the doctor—patient relationship may primarily determine the outcome of treatment. Package inserts, the PDR, or Honigfeld & Howard<sup>2</sup> may be consulted for usual dosages.

Some research has suggested certain specific differences among the benzodiazepines. Of particular interest is the suggestion that chlordiazepoxide (Librium) may tend to provoke or potentiate the expression of anger, hostility and aggression and that diazepam (Valium) and oxazepam (Serax) may not do so to the same extent.<sup>7, 8</sup>

Not all anxiety, even when the term is defined fairly narrowly, may be subserved by identical neural mechanisms. Thus, the benzodiazepine drugs have been shown most clearly to be effective against anticipatory anxiety, while certain acute panic states may respond best to imipramine (Tofranil),<sup>9</sup> which is generally considered to be an anti-depressant. (This indication would hold,



presumably, for other anti-depressants). The anti-psychotic drugs, although at times beneficial, are often ineffective, and occasionally deleterious, in anxiety states in non-psychotic patients.<sup>10</sup>

### Antidepressants

The two major categories of anti-depressants currently in use are the tricyclic drugs, and the monoamine oxidase (MAO) inhibitors (Table 3). The former are safer and better-tolerated, both in terms of direct side effects and undesirable interactions with other substances, and represent the drugs of choice in most situations. All of these agents have delayed onset of therapeutic effect, in the treatment of depression. Ten days to two weeks of treatment are usually necessary before lifting of depression is seen, and a month at least is necessary for an adequate clinical trial.

TABLE 3.—*A partial listing of anti-depressant drugs.*

#### MONOAMINE OXIDASE INHIBITORS

Isocarboxazid (Marplan)  
Pargyline (Eutonyl)  
Phenelzine (Nardil)  
Tranlycypromine (Parnate)

#### TRICYCLIC DRUGS

Amitriptyline (Elavil)  
Desipramine (Pertofrane, Norpramin)  
Imipramine (Tofranil)  
Nortriptyline (Aventyl)  
Protriptyline (Vivactil)  
Trimipramine (Surmontil)  
Doxepin (Sinequan)

Psychostimulants, such as the amphetamines and methylphenidate (Ritalin), have little utility in the treatment of depression, although they may occasionally benefit the despondent or mildly apathetic patient in whom the other signs of depression (see flow-sheet) are minimal or absent, and who has no other major psychiatric illness. The physician should be aware of the known potential of these drugs for abuse.

The tricyclic anti-depressants differ in the extent to which they possess sedative, anti-anxiety and even anti-psychotic properties. Doxepin (Sinequan) and amitriptyline (Elavil) are most active in these respects, while imipramine (Tofranil) is far less active. As with the anti-psychotic drugs, these differences do not alter essential clinical efficacy (measured in this instance by success in the treatment of depression), but may govern the choice of the specific agent in a particular clinical situation: eg, depression with some anxiety. A specimen trial of treatment, using imipramine (Tofranil) as an example, might be as follows: 75 mg per day in divided doses (t.i.d., for example) during the first week; 100 or 150 mg per day during the second; 200 mg per day for the third; and 300 mg per day for the fourth week. After the second week, the medication might be given b.i.d., or even in a single bed-time dose.

Medication might be maintained, at the dose at which the depression lifted, for two to four months, and then tapered and discontinued. Package inserts, the PDR, or Honigfeld & Howard may be consulted for dosages of anti-depressant drugs other than imipramine (Tofranil).

### Use of the Flow-sheet

The flow-sheet analyzes the process leading to the choice of medication into three main levels of evaluation and decision. The first of these levels involves simply the recognition that a mental or emotional disorder exists. As the flow-sheet indicates, the data upon which that decision rests may be of several sorts, and may come either directly from the patient or from collateral sources.

Level two consists in the primary classification of the mental or emotional problem as one of psychosis, depression or anxiety. Symptoms which pertain to each category are given under definition of terms. The categories are obviously not mutually exclusive, and many mixed cases will be encountered: eg, depressive symptoms with psychotic symptoms and psychosis with anxiety symptoms. Such cases should be placed in one of the applicable major categories: the flow-sheet is so arranged that, whichever category is employed at the level two decision, the resulting choice of agent will be the same, as long as symptoms belonging to other categories are taken into account at the next level of decision.

The third level is the qualification, or further subdivision of the primary categories. The diagnostic decision at this level translates directly and explicitly into a treatment decision.

It will be evident that the flow-sheet contains a far-from-exhaustive list of psychiatric diagnoses. It will equally be evident that the terms and definitions here employed differ in some respects from what are commonly in use: eg, "depressive syndrome," which roughly corresponds to "psychotic" and "endogenous" depression. In explanation, the authors wish to emphasize again that this is a diagnostic schema operationally defined in terms of its sole purpose: choice of psychotropic agent. Conventional psychiatric nosology includes many diagnostic categories which carry no implication with regard to drug treatment. Other categories carry ambiguous implications, and need to be re-defined if they are to be useful for the present purpose. The flow-sheet excludes diagnostic categories of the first sort, as being irrelevant; and utilizes appropriate re-definitions of categories of the second sort. Although a discussion of psychiatric diagnosis per se would lie outside the scope of this paper, it should be noted that other workers, with a variety of purposes in mind, have similarly sought to modify our present, only partially satisfactory, nosology.<sup>11, 12</sup>

## Clinical Examples

1. A 52-year-old man complains of weakness, fatigue and palpitations, and gastro-intestinal distress which is only vaguely described. Medical work-up reveals no significant abnormality. On being informed of this the patient redoubles his complaints, and advances a number of clearly hypochondriacal ideas.

At this point, the physician decides that an emotional disorder exists (level one decision). Observing the patient further, he notes some general restlessness and a tendency toward "nervous" movements of the hands during interviews. The patient seldom smiles, but states that he is fearful rather than sad. He gives a history of both insomnia—primarily difficulty in falling asleep—and mild anorexia.

Marshalling the evidence, the physician classifies the problem as one of anxiety, although some of the complaints would also fit into the category of depression (level two decision). There are no indications of psychosis, and the anxiety is disabling. The physician begins a trial of treatment with an anti-anxiety agent (level three decision). He notes the alternative possibility of depression in his differential diagnosis: should this trial not be helpful, he might add anti-depressant medication.

2. A 24-year-old woman is referred by her mother, who states that she is worried about her daughter and thinks she may be seriously ill. Specifically, she has noted that her daughter, who recently returned to the parental home, is withdrawn, irritable and seems no longer to care about her appearance. The physician concludes, assuming this account to be reasonably accurate, that an emotional problem is present (level one decision).

Medical work-up is non-contributory, but the physician observes that his patient is extremely tense, tremulous, startled by random noises and fearful of physical examination. Upon questioning, she first denies but later admits feeling intensely anxious. Careful, tactful questioning elicits the information that she is afraid she is losing her mind; that she thinks people have been following her on the street and making peculiar gestures toward her; and that her thoughts are sometimes spoken aloud by television newscasters. The physician notes that she has symptoms both of anxiety and psychosis and elects to place her in the latter category on the grounds that it represents the more serious illness (level two decision). The negative medical work-up and the absence of the specific signs of an organic mental syndrome (see flow-sheet) lead him to rule out organic psychosis and depressive or manic symptoms appear to be absent. His level three decision is "psychosis

(schizophrenic or paranoid) with anxiety" and following the flow-sheet, he institutes treatment with an anti-psychotic agent.

Had the physician chosen to place this patient in the primary category of anxiety, the treatment decision would have been the same, since the level three diagnosis would have been "anxiety with psychosis."

## Discussion

The diagnostic approach which the flow-sheet exemplifies involves a modification of traditional psychiatric nosology, based empirically upon research and practice with psychotropic drugs. It contains some of the ambiguity of traditional nosology. Thus, for example, the term psychosis is compound rather than unitary in meaning: it includes not only the concept of "mis-evaluation and mis-perception of reality," but also the concepts of "decompensation" and "severity of disorder." The flow-sheet is also incomplete even within its conceptual limitations, in that it does not deal with all possible clinical contingencies, let alone all possible logical ones. A complete instrument, in this sense, would be so elaborate and complex in structure as to be impractical for the present purposes.

It may be in order at this point to reiterate those present purposes. They are essentially to facilitate the provision of primary psychiatric care, by the non-psychiatric physician, as regards the use of psychotropic agents. It is neither possible, nor intended, that this approach should diminish the proper role of psychiatric consultation; nor is it expected that the approach should deal with the more complex and difficult diagnostic problems. If these stated purposes are in some measure achieved, the authors' efforts will have been successful.

## Definition of Terms

Evidence that mental or emotional illness is present:

1. Patient complains of mental or emotional symptoms.
2. Patient complains of interpersonal difficulties.
3. Patient presents baseless somatic complaints.
4. Others, eg, family, complain about patient's behavior.
5. Physician observes signs of emotional or mental illness.

### *Anxiety:*

1. Conscious feelings of anxiety or tension or fearfulness, etc.
2. Tremulousness; diaphoresis.
3. Palpitations; "butterflies in stomach."



4. Hyperventilation; dizziness; faintness.
5. Instability; explosiveness.
6. Phobias; obsessive-compulsive and conversion symptoms; somatic fears and preoccupations.

#### *Depression:*

1. Depressed mood, sadness, despondency.
2. Hopelessness.
3. Self-recrimination, guilt, lowered self-esteem.
4. Somatic preoccupations and concerns.

#### *Psychosis:*

1. Hallucinations.
2. Delusions.
3. Profound alterations of mood.
4. Severe impairment of adaptive behavior.
5. Inability to recognize reality.

*Depressive syndrome* (These patients are often endogenous depressives, or psychotic depressives, in standard nosologies).

Depression, as defined above, plus:

1. Insomnia; early morning awakening.
2. Intensification of distress in morning.
3. Anorexia; sometimes weight loss.
4. Loss of interest in ordinary activities; anhedonia; loss of libido.
5. Usually decreased, occasionally increased, activation level.

*Functional impairment* means any interference with the conduct of ordinary activities and con-

cerns of living, lasting for at least one week. Severity is judged by the degree of interference.

#### *Organic mental syndrome:*

1. disorientation.
2. recent memory loss.
3. impairment of judgment and intellect.
4. lability of affect.

#### *Schizophrenia:*

1. blunted or inappropriate affect.
2. looseness of associations.
3. ambivalence.
4. autism.

#### *Paranoid state:*

1. suspiciousness; hypervigilance.
2. persecutory or grandiose delusions.
3. absence of schizophrenic characteristics.

#### *Mania:*

1. Abundant energy; hyperactivity; increased activation.
2. Euphoria; sometimes anger, irritability or paranoid thinking.
3. Insomnia, usually without anorexia.
4. Rapid speech and thought processes; sometimes to point of disorganization.

### **Acknowledgment**

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## Psychiatry in Hawaii: A Short History

WILLIAM J. T. CODY, M.D., *Honolulu*

● *The theme of this paper has been difficult to adhere to because I have had to fend off a steady intrusion into the historical material of all kinds of cultural and research data that have accumulated here in the last 50 years. I therefore have tried to limit my discussion to a broad descriptive outline of the important developments in psychiatry in Hawaii, some of the people involved, and the overall picture today, which I hope will be of interest to you.*

AS HISTORY unfolds, it often reveals to us examples of enduring patterns, recurring themes, or old wine in new bottles as it were. These themes vary from one another only in so far as the socio-cultural matrix changes.

To pick one example, there was a very definite type of family therapy found in the Hawaiian culture of 200 years ago. (Carl Jung would have been pleased, I think, to learn about this primitive archetype of family therapy.) The Hawaiians' word for it was "ho'oponopono," a specific family conference in which relationships were "set right" through prayer, discussion, confession, repentance, mutual restitution and forgiveness.

"Ho'oponopono" was essentially a family matter involving all the nuclear or immediate family. A non-relative living with the family might take part if he was involved with the "pilikia" (trouble).

### Dealing with Problems

Some of the specific requirements for "ho'oponopono" include a statement of the obvious problem to be solved or prevented from getting worse, and the setting to right of each successive problem that became apparent during the course of the talk. Self-scrutiny and discussion of individual conduct, attitudes and emotions were carried out "in the very spirit of truth." Mutual forgiveness

and releasing from guilts provided catharsis.

The leader questioned the involved participants and served as a control for disruptive emotions. Nearly always, he called for periods of silence called "hoomalu," which were invoked to calm tempers, to encourage self-inquiry into actions, motives and feelings, or else simply for rest during an all day "ho'oponopono." Alcohol was not allowed. Prayers were frequent and addressed to pagan gods.

Consequently, when Christianity came in more than a century ago, "ho'oponopono" went out. Many Hawaiians came to believe their time-honored method of family therapy was a "stupid heathen thing." Over the decades since then, extensive distortions crept into the concept, the rules of procedure and the terminology. But today, "ho'oponopono" has been accurately delineated once again and is beginning to be appreciated as one of the soundest methods to maintain and/or restore healthy family relationships that any society has ever devised.

For many hundreds of years, the Hawaiian people remained the sole denizens of the islands of Hawaii. But with the explorations of Captain James Cook in 1778, modern immigration began, and over the next several decades, waves of whalers, traders, missionaries, adventurers, scholars, contract laborers, militia, and tourists brought to the islands literacy, religion and politics, along with commerce and science, not to mention pineapple, sugar cane, airplanes, and orchids. They also brought certain infectious diseases which decimated the Hawaiian population from 500,000 to fewer than 60,000.

The Board of Health was established by King Kamehameha III in 1850, and a well organized system of plantation medicine gradually evolved. However, difficult psychiatric problems were often handled in somewhat the same manner as in other countries at that time, namely by social ostracism and/or jail. A "kahuna" or medicine man might

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be asked to try and exorcise the evil spirits. Mentally ill persons were sometimes returned to their countries of origin, for example, the Philippines.

### **The First Mental Hospital**

About the time the Board of Health was established, there was considerable public interest in developing a hospital for the mentally ill. The 1862 Legislature authorized construction of a facility to be known as the Oahu Insane Asylum. The Asylum was built in 1866 and six patients were transferred there from the Honolulu Jail. A year later, there were 62 admissions. The Asylum continued in its Honolulu location for about 65 years. Beginning in 1903 a new site was sought, and on January 6, 1930 the Asylum closed and the U.S. Army moved the 549 patients to the new Territorial Hospital in Kahoehoe.

Meanwhile, interest in mental hygiene was gradually developing. Frederick Allen, then Director of the Child Guidance Clinic in Philadelphia, paid a visit to Hawaii in 1929 under the sponsorship of the Territorial Conference of Social Workers. However, he was met with resistance and indifference by the local medical community.

One of the first breakthroughs in terms of arousing public interest was a visit in 1931 by none other than Clifford Beers, a founding director of the National Association of Mental Health and the author of the book "A Mind That Found Itself." Beers was invited here by Lawrence M. Judd, then Governor of the State. On a February evening in 1931 he talked to a large audience at McKinley High School on "Mental Illness—Its Care and Prevention." Beers told his story simply and directly. When he came to the part where he jumped out of a window in an effort to finish a life which had grown intolerable, he said "the damn fools mended my broken ankles without repairing the mind which compelled the jump!"

### **Advisory Council—1932**

Public response to Beers' stimulating talk was considerable. As a result, the Governor appointed, in 1932, an advisory council on mental hygiene. It consisted of six physicians and three laymen. One of the appointees was Dr. Stanley Porteus, the distinguished research psychologist and father of the Porteus Maze Test. (Dr. Porteus for many years directed the University Psychological Clinic, which existed from 1922 until its absorption into the Division of Mental Health in 1955. The Clinic did a great deal of psychometric testing for the public schools, the juvenile court and the hospital for the mentally retarded.) The advisory council on mental hygiene came to naught because the great depression of the 30's arrived, the Governor left office, and the committee went into limbo.

Also, there was a marked lack of support from the medical profession in the wider community.

Two other prominent names now enter the list. Dr. Ira V. Hiscock, Chairman of the Department of Public Health of the Yale School of Medicine, surveyed health and welfare activities in Honolulu in 1929 and again in 1936. He repeatedly urged the establishment of psychiatric services for Hawaii other than those provided by the existing Territorial Hospital. Dr. Hiscock said, "In the average family throughout a community, it is probable that the handicap due to mental maladjustment is as great as the handicap due to all other diseases and defects combined."

In 1937, no less a person than Dr. Franklin J. Ebaugh became the next major consultant. Dr. Ebaugh, then at Colorado, came here as a guest professor for the University of Hawaii summer session. He was persuaded to make a comprehensive mental health survey of the Territory, an effort in which some 35 organizations participated. His epic report made specific recommendations for changes in existing laws, re-organization of the Territorial Hospital, development of community education and of psychiatric facilities in general community hospitals, and the creation of a Territorial Psychiatric Clinic.

### **Demonstration Clinic**

The Chamber of Commerce of Honolulu then appropriated \$11,000 from public health funds to help finance establishment of a demonstration psychiatric clinic. The Hawaii Mental Health Clinic, as it came to be known, was based at Queen's Hospital in Honolulu. It operated for the year 1938-1939, demonstrated its value to the community, and led to legislation in 1939, providing (for the first time) a bureau of mental hygiene under the auspices of the Board of Health.

A few words about the Queen's Medical Center, originally known as Queen's Hospital, which was founded in 1859. Queen Emma who personally solicited funds to sustain it, directed that it be established for "the relief of the indigent sick and disabled people of the Hawaiian Kingdom and such foreigners as might require help." Queen's has had a psychiatric unit since 1938 as mentioned above. In 1942 a residency in psychiatry was established there. At the present time Queen's is the largest and best-equipped hospital in Honolulu, and houses the first two years of the residency training program in psychiatry, both inpatient and outpatient services, as well as emergency room and consultation services. A local psychiatrist recently served as Chief of Staff of the Hospital over a three-year period. Both private and staff patients, requiring inpatient care, are hospitalized in the psychiatric ward known as "Puuhoonua," which

means "place of refuge" or "place of peace and safety."

A separate institution for the mentally retarded was founded in 1919, Waimano Home (now Waimano Training School & Hospital), which is still an important inpatient facility located on west Oahu. Over the mountains in Kaneohe, the Territorial Hospital, like Waimano, continued to be a largely custodial institution in the 30's and 40's with its census gradually rising to a high of 1,250 patients. The professional staff increased considerably after 1951 when funds became more plentiful. The residency program was expanded to three years, utilizing the clinic at Queen's Hospital for outpatient training.

An internship in clinical psychology was established, and the first hospital satellite clinic, the Convalescent Center, was developed in Honolulu in 1959. This latter facility provided the first exodus of patients from out of the Territorial Hospital, now called the Hawaii State Hospital.

### **Back to the Neighbor Islands**

The second such exodus consisted of hospital patients from neighbor islands who were returned to their home islands to take up vacant inpatient beds in county tuberculosis sanatoria. Prior to this, an elaborate program of inter-hospital visiting and training of staff was worked out, and in the end, the newly returned patients (a little like the POW's of today) were met at neighbor island airports by a TB hospital staff member who had spent the previous month at the Hawaii State Hospital working with the very same patients. Changes in diet and climate helped, but being home again especially worked wonders. Old friends visited, jobs were developed, and as this program expanded on all the major islands, the census at Kaneohe continued to decline. In 1972 there were only 200 patients actually in residence at the State Hospital (even though the rate of first admissions has continued to climb as the population of the State soars over 750,000).

A visitor to the hospital today would encounter a situation predicted by Dr. Robert Felix in an address to the staff of the hospital in 1962: "Let the mental hospitals of today" he said, "become the campuses of tomorrow. They have the buildings, the kitchen facilities and the grounds." Today, the Windward Community College, a branch of the University of Hawaii, is well established in several of the former hospital buildings. Where once dwelt chronic male psychiatric patients, there are now young, eager students.

### **Community Mental Health Clinics**

Meanwhile, on the State level, the Division of Mental Health began to develop regional mental

health centers, and community psychiatry thus had its beginning. While the unfolding of that story is, in some respects, similar to that of community clinic development programs in other states, the story of the neighbor island mental health centers is uniquely Hawaiian. Each of the three major neighbor islands, Kauai, Maui, and Hawaii, has its own mental health service with complete services available to the people of that island. Working under the county health officer (each major island is a separate county), the neighbor island psychiatrist utilizes a few beds in the county general hospital for acute psychiatric cases, uses TB sanatoria for some chronic cases, directs a team to roam the island on home visits, agency consultations, etc., conducts a major outpatient clinic, and in general functions very much as the Compleat Alienist.

The community mental health clinics on Oahu have continued to develop and expand so that at present there are 14 clinics of various sizes. Staff from the Hawaii State Hospital has been relocated to the centers and work with their patients in new settings. The centers serve close to 8,000 persons a year.

As far as private practice in Honolulu is concerned, it is flourishing. The first practicing psychiatrist began in 1942 on a part-time basis. Today, there are approximately 50 psychiatrists listed in the yellow pages. The Hawaii Psychiatric Society has about 120 members which, in addition to the 50 just mentioned, includes psychiatrists working for the State, the various branches of the military, Tripler Hospital, residents in training, and the faculty of the Department of Psychiatry in the relatively new University of Hawaii Medical School (1967). (The 1973 State Legislature approved a third and fourth year, making our medical school a degree-granting institution with the first class expected to graduate in 1975. Prior to this, students left Hawaii after their first two years, to attend a Mainland medical school and graduate there.)

Psychiatrists today in Honolulu, in addition to the above-mentioned institutions, work in a wide variety of areas such as the Courts and Corrections System, facilities for children and youth, emergency services, consultations to schools and community agencies and a host of teaching and research activities.

We are not without our problems, however, and Hawaii is no more a paradise than anywhere else. The disappearance of the internship concerns those of us in the residency training program; the uncertainties of the future of community mental health centers troubles those who work there; jointly we all regard with anxiety the shadow of increased government control and decreased Federal support.



Another problem is the rapid growth of undisciplined eclecticism and adventurism under the banner of "doing your own thing professionally." Patients seeking personal growth sometimes experience clinical disaster.

At any rate, psychiatry in Hawaii remains quite viable and its practitioners are constantly aware

of the special cultural and ethnic parameters operating in our population and their influence on symptoms and behavior.

In closing, may I say that this meeting adds not only the latest, but one of the most distinguished events in the ongoing history of psychiatry in Hawaii.

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*Caution is urged in treating high serum calcium . . .*

## Case Report

### Seizures Following Sodium Sulfate Therapy for Hypercalcemia in Multiple Myeloma

† CLARENCE E. McDANAL, M.D., *Honolulu* and  
‡ JACK GELLER, M.D., *San Diego*

● *A patient with multiple myeloma and hypercalcemia had a seizure following treatment with intravenous sodium sulfate, Decadron, and two Fleet Phospho-Soda enemas in two days. According to the McLean-Hastings nomogram, her initial ionized serum calcium was elevated as compared to a below-normal one following treatment. It is important that the physician be aware of the ionized serum calcium value and the possibility of seizures following vigorous therapy for hypercalcemia.*

**S**ODIUM SULFATE has been reported to be a safe, effective agent for the treatment of hypercalcemia. The following case report describes a patient who developed seizures after two days of intravenous sodium sulfate therapy.

#### Report of a Case

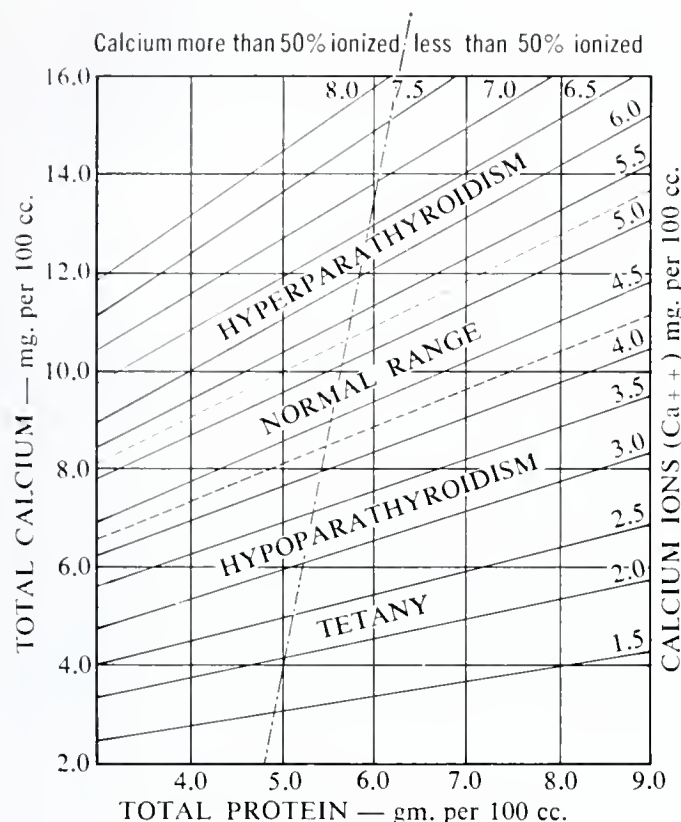
A 57-year-old Mexican woman was admitted to Mercy Hospital and Medical Center (San Diego) with back pain, constipation, anorexia, and dizziness of six months' duration. She had no previous serious illnesses, operations, or accidents. A diagnosis of multiple myeloma was made and substantiated by serum and urine immunoelectrophoresis, Bence Jones protein, x-ray studies, and bone marrow smear.

Prior to therapy, she had a serum calcium of 13.8 gm/100 ml, and a total serum protein of 9.5 gm/100 ml, with an A/G ratio of  $\frac{2}{3}$ . An ionized calcium, as indicated by the McLean-Hastings nomogram, was distinctly elevated. Treatment for hypercalcemia was begun with isotonic sodium sulfate, containing 8 mg of Decadron per 1000 ml, to be given IV at the rate of 50 ml/hr. Following two liters over a 44-hour

† University of Hawaii School of Medicine.

‡ Mercy Hospital and Medical Center, San Diego, California.  
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FIG. 1.—Chart for calculation of  $\text{Ca}^{++}$  concentration from total protein and total calcium of serum or plasma.



period and two Fleet Phospho-Soda enemas, the patient experienced two grand mal seizures and therapy was stopped immediately. At the time of the onset of seizures, her serum calcium had fallen to 9.6 mg%, without any change in serum protein from the original value. Although this value is distinctly low in terms of ionized calcium, as indicated by the McLean-Hastings nomogram, this was not appreciated and the patient was treated only with Valium for her seizures. Also noted at the time of the seizures was a drop in serum potassium from a base line value of 3.4 mEq/l to 1.9 mEq/l. No change was noted in serum sodium, which remained close to the baseline value of 136 mEq/l, nor in the BUN, which remained in the range of 38-50 mg% throughout her hospitalization. The patient had also been placed on maintenance Dilantin therapy. Nine hours following her original seizures, her serum calcium had fallen to 7.8 mg%. No further seizures were noted during her hospitalization, and her serum calciums returned to normal levels. A workup for possible causes of

her seizures included a negative skull x-ray and an EEG which showed non-localizing changes suggesting a toxic or metabolic encephalopathy. A spinal tap was traumatic, with no significant abnormalities in the third collected tube.

### Comment

Seizures have not been previously documented following sodium sulfate therapy for hypercalcemia.<sup>1, 2, 3</sup> Hypomagnesemia, hypokalemia, and hyponatremia have been reported following sodium sulfate.<sup>1, 4</sup> This patient did develop hypokalemia. Serum magnesium levels were not done. However, according to the McLean-Hastings nomogram, the patient had slight but defined elevation of serum ionized calcium on admission prior to therapy.<sup>5</sup> Hypercalcemia symptoms were not progressive, and she probably could have been treated with less vigorous therapy, such as IV saline. The relatively rapid fall in serum ionized calcium to subnormal levels following sodium sulfate treatment was probably responsible for her seizures. Corticosteroids certainly lower serum calcium in patients with hypercalcemia due to malignancy of myeloma, but this is less potent therapy for reduction in calcium than sodium sulfate. No seizures following dexamethasone therapy for hypercalcemia have been reported. A contributory role towards the drop in calcium could also be attributed to the use of Fleet's phosphorus soda. Again, it is not likely that the doses used (two treatments over a 48-hour period) could have played a significant role in the drop in calcium levels.

Certainly, hypomagnesemia, which can result from sodium sulfate therapy, can produce seizures. Since this was not measured in our patient, we cannot assess its contribution to the clinical findings. In view of the negative workup for possible CNS complications of myeloma, the most plausible explanation for seizures in this patient was the significant decrease in ionized calcium levels following sodium sulfate therapy. This case would warn against the use of potent calcium-lowering agents, such as sodium sulfate, in combination with steroids and phosphates in patients with mild hypercalcemia, as indicated by the level of ionized calcium in the McLean-Hastings nomogram.

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## Aloha United Fund

Doctors are generous, as a rule, with the health agencies they help to run. They are generous with their money as well as with their precious time.

But they usually give directly to the agency, in a private and unpublicized way, instead of publicly through the Aloha United Fund.

"Earmarked" gifts to the A.U.F.—*designated* gifts through the A.U.F. to a particular agency—can go to the major health agencies intact, without being subtracted from the agencies' A.U.F. allocation.

If doctors would do this, it would no longer

look to the public and to our sister professions as if doctors were ungenerous where charitable donations are concerned. We would smell like a *pikaki* instead of a *noni* apple. We'd look good!

Please, doctor: when you plan your next year's donation—for 1975—to Heart, Cancer, or the Red Cross, make it by a designated donation to the Aloha United Fund. You'll receive an acknowledgment and thanks from the agency you're giving it to, and you'll make a major contribution to the public relations of the medical profession.

H.L.A.

## Is "Defensive" Medicine Often Just Good Medicine?

The legalistic age in which we are all trying to survive has led, it has been charged, to the practice of "defensive" medicine: doing tests and examinations or requiring visits, which as physicians we are pretty darn sure are unnecessary, just so we will never have to explain to a plaintiff's attorney in court why we neglected, or at least omitted, to do them.

There's a good deal of truth in this charge, and fee-for-service medical care is surely made more expensive just because of the threat of medical malpractice.

But there is another side to the coin, as was pointed out recently in a thoughtful article in *JAMA*. To a very considerable extent, and in a very large proportion of all cases, the "defensive"

posture is also the careful conscientious posture, on the part of the physician.

When you consider cutting a corner, to save the patient a *probably* nonessential cost—and don't all of us do this a score of times a day?—ask yourself whether the patient would have a right to be annoyed with you, or even indignant, if something went wrong as a result. Could you, under such circumstances, resist a charge of carelessness or negligence with a perfectly clear conscience? Unless the answer is a prompt and resounding "Yes," better think again, and *order* that x-ray examination, or test, or *require* the patient to make a return visit. Even if you're practicing in an HMO!

H.L.A.

## COUNCIL MEETING

Friday, January 11, 1974 — 5:30 P.M.

Mabel Smyth Conference Room

### CALL TO ORDER

The meeting was called to order by President Thomas P. Frissell. Present were Drs. Winfred Y. Lee, William E. Iaconetti, R. Varian Sloan, Grover H. Batten, Herbert Y. H. Chinn, George Goto, J. I. F. Reppun, Albert Chun-Hoon, Ann B. Catts, Henry Oyama, Sakae Uehara, Verne Adams, Peter Kim, William Moore, J. Mark B. Sowers, Eugene Rames, and Calvin C. J. Sia, Fred I. Gilbert, Jr., Rowlin Lichter, Elisabeth K. Anderson and Mr. Richard Perry, AMA Field Representative.

### MINUTES

The minutes of the November 2, 1973, meeting were approved as circulated.

### SECRETARY'S REPORT

The report of the secretary was approved.

### FINANCE AND TREASURER'S REPORT

The December financial report, including the year-end figures, was presented for Council review.

#### ACTION:

It was voted to file the report of the Treasurer subject to audit.

### WOMAN'S AUXILIARY REPORT

Mrs. Florence Goto, President of the Auxiliary, shared some of the Auxiliary activities with the Council.

### COMMITTEES AND COMMISSIONS REPORT

A. *Health Services and Care:* Dr. Gilbert reported that the Department of Health will hold a public hearing on rules and regulations relating to clinical laboratories. Letters have been sent to the Hawaii Society of Internal Medicine and the Hawaii Society of Pathologists in an effort to coordinate the position of the physicians. The Council was asked to consider support of proficiency testing by methods such as those developed by the American Society of Pathologists; that detailed requirements for the technical staff be deleted from the regulations; that the technician's society develop the requirements for the technicians and the HMA for the directorships of labs.

#### ACTION:

The Council voted to support the recommendation.

B. *Medical Services:* The Fee Survey Committee recommends submission of a resolution to the AMA House of Delegates requesting the Judicial Council to reconsider their position relative to the ethical nature of adding interest charges to delinquent accounts.

#### ACTION:

A formal resolution will be submitted for Council approval at the meeting prior to the AMA session.

C. *Public Health:* Substance Abuse Committee recom-

mends that HMA request the publishers of the *Physician's Desk Reference* to list controlled substances by schedule and that supplements be issued when changes occur. The Communicable Disease and School Health Committee recommend legislation be drafted regarding completion of physical examination and immunizations prior to first entry to school. The Cancer Committee recommends approval of the Oncology Nursing Program in Community Hospitals proposed by Queen's Medical Center; that HMA cooperate with the AMA's Committee on Cancer; that a questionnaire be sent to all HMA members regarding their interest in treating breast cancer problems when referred from the Pacific Health Research Institute Project; and that HMA endorse the concept of having a cancer coordinator in all community hospitals.

#### ACTION:

It was voted to approve the recommendations of the Public Health Commission. It was also voted to ask the Cancer Committee to investigate the services rendered in mobile cancer units being certain that patients are aware that the tests received are for cancer detection purposes only.

D. *Medical Education and Peer Review:* The Medical Education Committee recommends acceptance of the Physician's Recognition Award as the vehicle for continuing medical education documentation and that HMA strongly urge all physicians to qualify for this program.

#### ACTION:

It was voted to approve the recommendation and it was further recommended that a letter be written to the Board of Medical Examiners recommending that no legislation on recertification or relicensure of physicians be prepared at this time in view of the continuing medical education program underway.

E. *Interprofessional Relations:* HMA Hotline has not been successful in obtaining additional funds to operate and is no longer on television. The committee is still investigating avenues for continuation of the program.

F. *Internal Affairs:* Plans for the 1975 AMA Clinical Session are being coordinated through the HMA Convention Committee. Dr. Herbert Uemura has been selected as chairman of the scientific program for the convention.

G. *Legislation:* The state legislature opens on January 16. Some of the measures affecting medicine are those relating to minor's consent for medical care, a statewide medical examiner system, plans for an acupuncture board.

H. *Cancer Commission:* The Commission is preparing a new contract with the Research Corporation for the Hawaii Tumor Registry operation in the SFER Program.

I. *Cancer Research Center:* The Lauhala Street site for the administrative offices of the Cancer Research Center has been selected. It is anticipated that the director of the Center will be appointed in April 1974.

J. *Emergency Medical Services:* The Oahu Medicom System was dedicated on January 10. The project is presently investigating the use of emergency call number 911. Discussions are continuing on the future operation of the system.

continued page 218



## Life In These Parts

"That was Dr. Charles Judd lost in pleasant thought yesterday morning as he rode his bike along Nuuanu—where he almost rear-ended TheBus in front of Chun Hoon Mkt. . . ." (From **Tom Horton's** column 3-26-74)

**Bob Krauss**, Bike Week chairman said, "Kaiser Medical Center is pacing the medical profession . . . There are almost half a dozen doctors at Kaiser Hospital who practice what they preach about exercise." (We learned that they were **Clifford Strachley**, **Sheldon Friedman**, **James Bennett**, and **Gordon Ing**, among others) . . .

"Kaiser Hospital is probably offering the most comprehensive acupuncture program of any American hospital that the acupuncture clinic will open Monday through Friday evenings at \$10 per treatment for medical plan members, with **William Yeung** in charge and three staff physicians, physiatrist **Roy Sam**, neurologist **Richard Korsak** and ENT man **Sigdian Lim** performing treatments. . . .

JAMA editor **Robert Moser** was back here in March with an AMA team to film conferences at St. Francis, Tripler, Children's, and Straub hospitals. The films of medical conferences in various medical centers will be used in a new library of audio-visual films.

**Richard Strauss**, associate professor of physiology and diving physician for U of H, has developed a method of observing the formation of nitrogen bubbles in gelatin under simulated deep sea pressure. The experiments could lead to decreased risk of decompression sickness and change the present tables on diver decompression, which are based on a 66-year-old formula developed by British physiologist **J. S. Haldane** . . .

We were happy to learn that **Clarence F. Chang**, former UH regent who was treated for his insomnia of 30 years with acupuncture in August last year is still sleeping well without the use of pills . . .

Golfer **Dick Ho** had a problem . . . When Billy Casper and family arrived in Hawaii for the Hawaiian Open, one of Billy's sons came down with mumps. Dick had to decide whether or not to give Billy a mumps shot, and if he did, whether it would affect Billy's play next day . . .

## Thought for Today

(Sent by Tom Leineweber)

Those women who call themselves Ms.  
Assert the prerogatives of Hs.  
Though clearly obsequious  
In matters quite devious  
They still cannot stand up to Ps.

## Makai III Nurse's Bulletin Board

"Women's faults are many. Men have only two—everything they say and everything they do."

## Claude Caver's Repertoire

"What's your name, son?" "Shelly." "That's a famous name. Your mother must have wanted you to become a poet like him." "Shelly Temple is a poet?"

"What's an Arab running nude across the desert called?" "The Streak of Araby."

## Professional Moves

Thus far, in this Year of the Tiger, *Homo sapiens medicus* has been a gentle, purring kitten, treading softly. . . . In April, x-ray man **George Takushi** relocated to 2525 S. King St. . . . OB Gyn men **Philip McNamee** and **Carl Morton** opened at Suite 302, Kapiolani Hospital. . . . Two allergists confused us no end with their announcements. . . . Island-hopping allergist **Peter Larm**, whose Honolulu office is still at 1744 Liliha, announced new office hours for Monday and Tuesday in Hilo in the *Hilo Tribune*, and the *Maui News* announced that he was available for consultations at the Maui Clinic, Kahului, Maui. . . . Still another allergist, **Philip Kuo**, (who is sometimes an "alergist," according to the *Wahiawa Press*) first announced in April that he was opening at the Professional Center, Suite 302 at 30 Aulike St., Kailua. . . . In May, he associated with the Windward Medical Center at 407 Uluniu St., Kailua. . . . In May, radiologist **Tom Kendig** joined the Fronk Clinic at 839 S. Beretania St. . . . psychiatrist **Dennis Lind** teamed up with psychiatrist **Engene Kostink** at the Control Data Bldg. at 2828 Paa St. . . . **Doris Jasinski** moved to 1904 University Ave., and eye man **Dennis Machara** established a branch office at Waipahu Professional Center. . . . Former Straub urologist **John Edwards** went solo at the Pan Am Building, 1600 Kapiolani Blvd. . . . Dermatologist **Philip Hellreich** relocated to Suite 302 Kailua Professional Bldg., which allergist **Philip Kuo** had recently occupied. . . . Having finished with this game of musical chairs in Honolulu, we shift to Hawaii, where GP **Charumati Rao** moved into the Mililani Medical Clinic in Mililani, and **Timothy Woo** announced that he will practice acupuncture at Suite 205, Hilo Plaza. . .

## Elected, Appointed, Honored

On the academic front: **DeWitt Hendee Smith** of Hilo was elected a Fellow of the American College of Cardiology. . . . **Pauline Wood**, **Ann Barbara Ho Yee** and **Frank Coyer** were elected Fellows in the American Academy of Pediatrics. . . . **Maurice Silver** was elected a Fellow in the American Academy of Compensation Medicine. . . .

On the national front: **Livingston Wong** was named to the National Institute of Arthritis, Metabolism and Digestive Diseases Advisory Council. . . . **Cora Manayan** was a co-chairwoman for the 1974 Pacesetter Campaign Conference for Democratic Women in Washington, D.C.

On the local front: **David Pang** was installed as president of Youth Encounter Systems, Inc. . . . On Kauai, **Yonemichi Miyashiro** was appointed to the State Board of Health and **Patrick Ain** to the Board of Medical Examiners. . . . **Willard Miyahira**, **Russell Hicks**, **Franklin Young**, **Brian O'Hara**, **Werner Schroffner**, and **Betty Soo** were elected to the board of the Hawaii Lay Diabetic Society, Inc. . . . **William John Holmes** was elected president of the Pacific Club. . . . **John Milnor** was elected a director of the Hawaii Association for Retarded Children. . . . **Edmund Lum** received the Mayor's "Good Guy Award" for his part in resuscitating a Willard Eldredge at the 10th Aloha State Square Dance convention in February. . .

continued page 221

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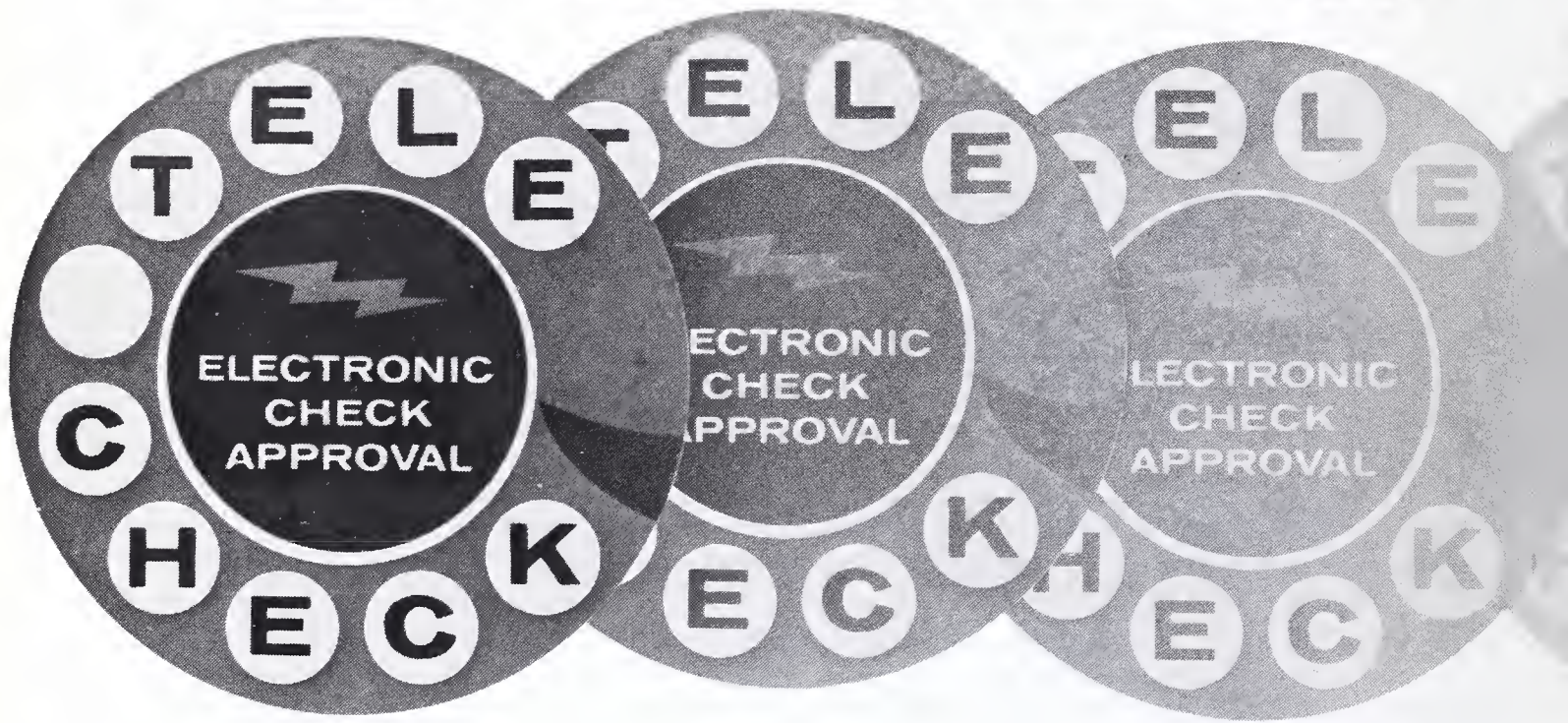
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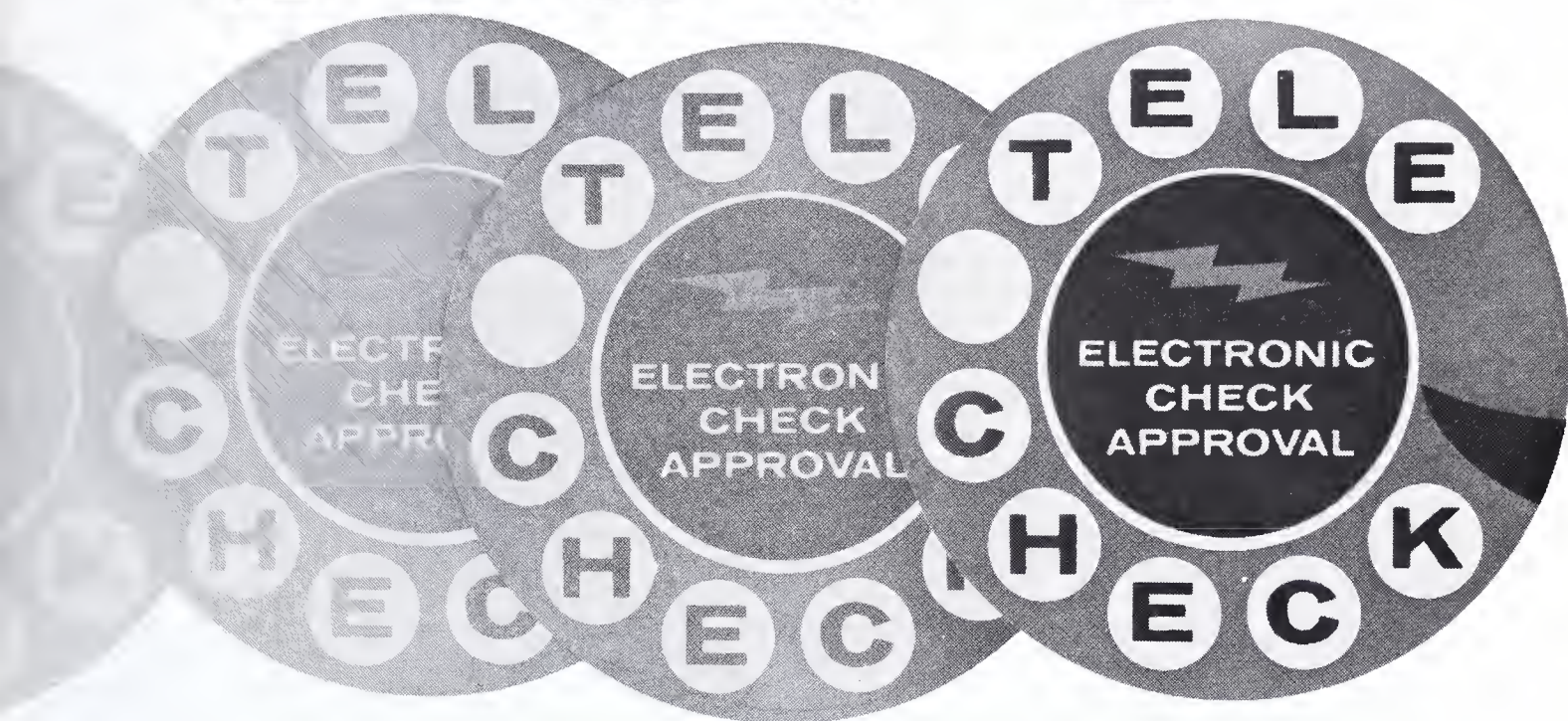
# JUNE 6



Telecheck Hawaii buys its own phone system to "cut costs".



# NOV. 4



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Comments Moore: "Lower costs? Sometimes, they're more expensive. I'm wiser, but poorer, for my experience."

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For details call Hawaiian Telephone's communications consultant. You can reach him at 546-5470.

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K. EMCRO: An evaluation of the Hawaii EMCRO project was circulated to the Council.

**ACTION:**

It was voted to accept the EMCRO report, disseminate it to the EMCRO Executive Board, Arthur D. Little & Company, RMP, Dr. James Appel, Drs. Alex Anderson and Max Botticelli and others designated by the officers.

L. PSRO: Nominations for the Foundation Board of Trustees will be submitted at the next Council meeting. The State of Hawaii and American Samoa have been designated as a single PSRO area. The Foundation has been informed that American Samoa does not wish to be included with the State of Hawaii and it was therefore recommended that a letter be written to the Washington PSRO office asking further investigation of this matter. The Board is continuing their meetings with hospital representatives and plans to begin work on criteria.

**ADJOURNMENT**

The Council expressed their appreciation for the excellent dinner prepared and served by Mrs. Frissell. The meeting adjourned at 10:00 P.M.

R. VARIAN SLOAN, M.D.



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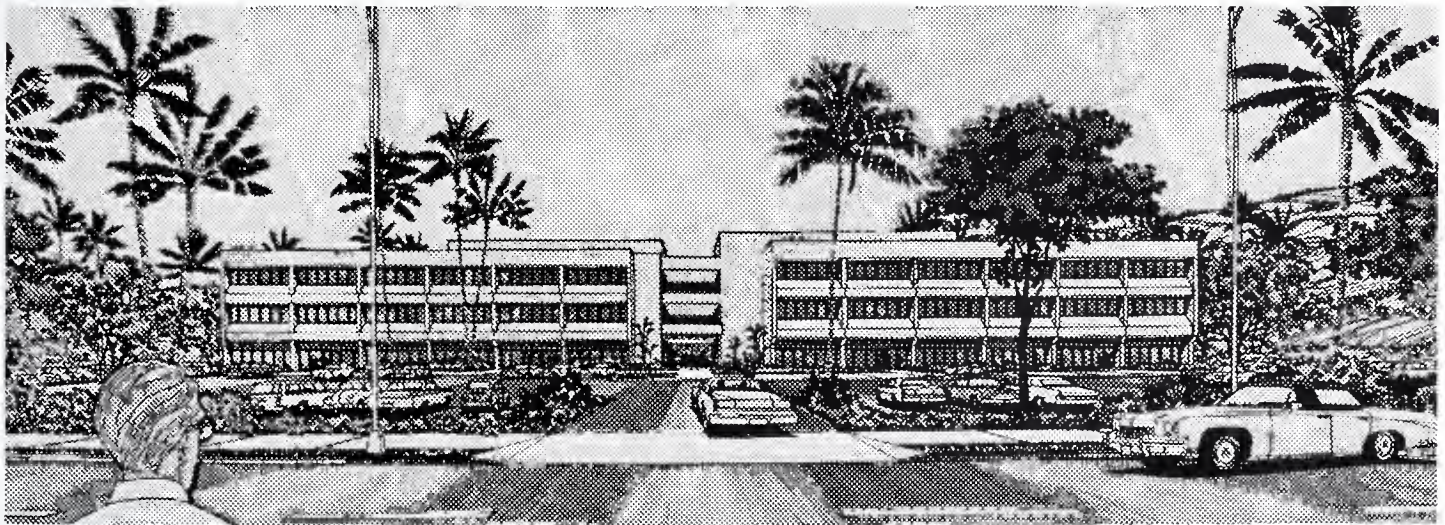
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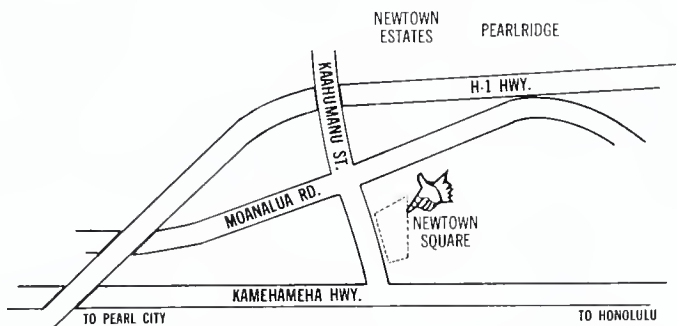
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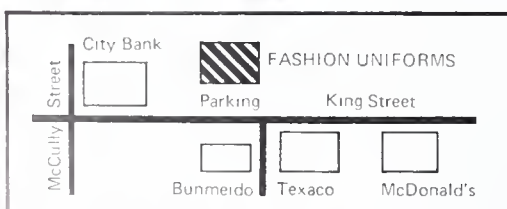
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## Miscellany

**Ben Tom** asked, "What happens when you don't pay an exorcist?" When we confessed ignorance, he replied slyly, "You get repossessed."

\* \* \*

Our architect friend, **Dick Dennis** contributed the following: A small town employer received the following Federal questionnaire: "Indicate the number of days of employee absenteeism broken down by sex." The employer answered quite frankly, "We have had absenteeism from drinking, but not from sex."

Doctor informs patient: "You have six months to live." The patient receives the doctor's bill and immediately calls the doctor... "Doc, I can't possibly pay your bill." The doctor replies, "Well, then, we'll give you 6 more months to live." (Moral per Dick Dennis: "Never pay up your doctor's bill. . . . It's a form of insurance. . . . He'll have to keep you healthy.")

## Letters To The News Editor

We are delighted to receive the following constructively critical letters so we are taking the liberty of extracting therefrom: "Dear Henry: I must say that after reading your last 'Notes & News'—you are desperately in need of new jokes and I'll work on getting a few that are at least clean and funny. . . ." (**Sharon Bintliff**) (Thanks Sharon, we agree we do need cleaner jokes).

"Dear Henry: The essence of good reporting is to get the facts straight. Since you saw fit to write an item in the State medical journal regarding the recently concluded tax trial, I thought you might be interested in a slightly more comprehensive description from the *Honolulu Advertiser* where, as you will note, the amount of tax involved was \$3,000 over a period of 3 years (average of slightly more than \$1,000 per year) and the Government prosecutor spent over \$200,000 of our tax money (yours and mine) to try to collect this and even went to the extent of attempting to tamper with the jury in his unsuccessful attempt. The whole affair was so distasteful that I would have preferred no further reference to it after I had been vindicated, but to find your column referring to it and with large numbers, as though there were some justification to the charges even when the charges had been proven false, hardly seems fair. . . ." (**Maurice Silver**) (Sorry, Maurice, you know there was no malice intended)

## Sportsmen

Our associate professor of pediatrics, **Sharon Bintliff** is a talented sportswoman who has played both tournament tennis and tournament golf. We learned that she

is now quite an avid paipo board surfer who accompanies her 11- and 14-year-old sons to Makaha, Kaiser Bowl, and Black Point to surf. . . She described paipo board surfing as follows: "The first feeling I get is like I'm clean all over. It's pure exhilaration to be on the wave. It's the ultimate exhilaration." Recently when Sharon missed the Walkathon for March of Dimes, a week later, she jogged 20 miles in 3 hours and 21 minutes and collected \$150-plus from physician friends for the March of Dimes. . .

The "Hunky Bunch" (**Hing Hua Chun**, wife Connie and their brood of six joggers) returned in April from the Boston Marathon and were interviewed by the reporter as they started tuning up with a six-mile run around Foster Village. . . Hunky apologetically said, "Normally we run about 10 miles a day, but we must get our legs back in shape." Connie, who finished last of the Chun gang, bubbled, "It was my first marathon and the people watching all encouraged me to finish." When asked if the Hunky Bunch would return to Boston for another try, Hunky said, "No, this was a once in a lifetime thing. The cost was really something. If the kids don't get a wedding reception and we just give them ladders, remember one thing—we blew it on the Boston Marathon!"

Since the end of April, **Jack Scaff, Jr.** and **John Wagner**, both of the American Medical Joggers Association and with the Cardiac Rehab program at Central YMCA, have been conducting a City-sponsored Sunday "Marathon Clinic" from 8 to 9 at the Kapiolani Park Bandstand. . .

From Tom Horton's column we gleaned the following: "**Dr. Richard You**, co-chairman of Miss Hawaii-USA contest, has never lacked for ambitious plans. He's trying to arrange for winning Miss USA to visit Moscow and Peking, where beauty pageants are certainly a foreign subject. . ."

## Miscellany

A Kissinger aide asked Golda Meir how it was that they were so successful in their military campaigns. Golda replied, "Well on the front lines, I put the doctors first, behind them the lawyers, and then the soldiers. When General Dayan shouts, 'Charge!' do those boys know how to charge!"

\* \* \*

The citizens were complaining of the senseless cost incurred when the State decided all highway signs were 1 foot too low, and raised them. One visitor remarked, "You're lucky it was a state decision. The Feds would have lowered the highways."

\* \* \*

"Can't help but wonder—if we'd had computers in 1875, wouldn't they have predicted that in 1975 there would be so many horse-drawn vehicles the manure couldn't be removed. . ."

\* \* \*

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tive against the gram-negative spectrum.\* NegGram  
Suspension is bactericidal over the entire urinary pH  
range against *E. coli*, *Klebsiella*, *Aerobacter*, and  
*Proteus*, including *P. mirabilis*, *P.morganii*, *P. vulgaris*,  
and *Proteus*. Disc susceptibility testing is recom-  
mended.

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tant advantages: fast symptomatic relief  
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growth reported to date in clinical reports and animal  
studies • no need to adjust acidity • low incidence of  
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ance has been reported with other antibacterials.

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easy to take because of its delicious raspberry flavor.

Effective against *Pseudomonas*.

Discussion of Adverse Reactions.

Johnson, L. H. and Cox, C. E.: Bacteriologic and pharmacodynamic  
studies of nalidixic acid, *J. Urol.* 104:908, Dec. 1970.

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## Suspension

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### Brief Summary

**Indications:** NegGram is indicated for the treatment of urinary  
tract infections caused by susceptible gram-negative micro-  
organisms, including the majority of *Proteus* strains, *Klebsiella*,  
*Aerobacter* (or *Enterobacter*), and *E. coli*. Disc susceptibility  
testing with the 30 mcg. disc should be performed prior to admin-  
istration of the drug, and during treatment if clinical response  
warrants.

**Contraindications:** NegGram is contraindicated in patients with  
known hypersensitivity to nalidixic acid and in patients with a  
history of convulsive disorder diseases.

**Warnings:** CNS effects including brief convulsions, increased  
intracranial pressure, and toxic psychosis have been reported  
rarely. These have occurred in infants and children or in geri-  
atric patients, usually from overdosage or in patients with pre-  
disposing factors. If these reactions occur, NegGram should be  
discontinued and appropriate measures should be instituted.  
(See Adverse Reactions and Overdosage.)

**Usage in Pregnancy.** Safe use of NegGram during the first tri-  
mester of pregnancy has not been established. However, the  
drug has been used during the last two trimesters without pro-  
ducing apparent ill effects in mother or child.

**Precautions:** Blood counts and renal and liver function tests  
should be performed periodically if treatment is continued for  
more than two weeks. NegGram should be used with caution in  
patients with liver disease, severely impaired kidney function,  
epilepsy, or severe cerebral arteriosclerosis.

Patients should be cautioned to avoid undue exposure to direct  
sunlight while receiving NegGram. Therapy should be discon-  
tinued if photosensitivity occurs.

Bacteria resistant to NegGram may emerge rapidly, sometimes  
within 48 hours of treatment. Therefore, cultures and bacterial  
sensitivity tests should be repeated if the clinical response is un-  
satisfactory or if a relapse occurs.

Nalidixic acid may enhance the effects of oral anticoagulants, war-  
farin or bishydroxycoumarin, by displacing significant amounts  
from serum albumin binding sites.

When Benedict's or Fehling's solutions or Clinistix® Reagent  
Tablets are used to test the urine of patients taking NegGram,  
a false-positive reaction for glucose may be obtained, due to the  
liberation of glucuronic acid from the metabolites excreted. How-  
ever, a colorimetric test for glucose based on an enzyme reaction  
(e.g., with Clinistix® Reagent Strips or Tes-Tape®) does not give  
a false-positive reaction to the liberated glucuronic acid.

Incorrect values may be obtained for urinary 17-keto and keto-  
genic steroids in patients receiving NegGram, because of an  
interaction between the drug and the *m*-dinitrobenzene used in  
the usual assay method. In such cases, the Porter-Silber test for  
17-hydroxycorticoids may be used.

**Adverse Reactions:** Reactions reported after oral administration  
of NegGram include *CNS effects:* drowsiness, weakness, head-  
ache, and dizziness and vertigo. Reversible subjective visual dis-  
turbances without objective findings have occurred infrequently  
(generally with each dose during the first few days of treatment).  
These reactions include overbrightness of lights, change in color  
perception, difficulty in focusing, decrease in visual acuity, and  
double vision. They usually disappeared promptly when dosage  
was reduced or therapy was discontinued. Toxic psychosis or  
brief convulsions have been reported rarely, usually following  
excessive doses. In general, the convulsions have occurred in  
patients with predisposing factors such as epilepsy or cerebral  
arteriosclerosis. In infants and children receiving therapeutic  
doses of NegGram, increased intracranial pressure with bulging  
anterior fontanel, papilledema, and headache has occasionally  
been observed. A few cases of 6th cranial nerve palsy have been  
reported. Although the mechanisms of these reactions are un-  
known, the signs and symptoms usually disappeared rapidly with  
no sequelae when treatment was discontinued. *Gastrointestinal:*  
abdominal pain, nausea, vomiting, and diarrhea. *Allergic:* rash,  
pruritus, urticaria, angioedema, eosinophilia, joint stiffness, and  
rarely, anaphylactoid reaction. Photosensitivity reactions, pri-  
marily involving exposed skin surfaces, have disappeared after  
therapy was discontinued. *Other:* rarely, cholestasis, paresthesia,  
metabolic acidosis, thrombocytopenia, leukopenia, or hemolytic  
anemia which in some patients may have been associated with a  
deficiency in activity of glucose-6-phosphate dehydrogenase.

**Dosage and Administration:** *Adults.* The recommended dosage  
for initial therapy in adults is 1 g. administered four times daily  
for one or two weeks (total daily dose, 4 g.). For prolonged  
therapy, the total daily dose may be reduced to 2 g. after the  
initial treatment period.

*Children.* Until further experience is gained, NegGram should  
not be administered to infants younger than three months. Dos-  
age in children 12 years of age and under should be calculated  
on the basis of body weight. The recommended total daily dosage  
for initial therapy is 25 mg./lb./day (55 mg./kg./day), adminis-  
tered in four equally divided doses. For prolonged therapy, the  
total daily dose may be reduced to 15 mg./lb./day (33 mg./kg./  
day). NegGram Suspension or NegGram Caplets of 250 mg. may  
be used. One 250 mg. Caplet is equivalent to one teaspoon (5 ml.)  
of the Suspension.

**Overdosage:** *Manifestations.* Toxic psychosis, convulsions, in-  
creased intracranial pressure, or metabolic acidosis may occur in  
patients taking more than the recommended dosage. Vomiting,  
nausea, and lethargy may also occur following overdosage. *Treat-  
ment.* Reactions are short lived (two to three hours) because the  
drug is rapidly excreted. If overdosage is noted early, gastric  
lavage is indicated. If absorption has occurred, increased fluid  
administration is advisable and supportive measures such as oxy-  
gen and means of artificial respiration should be available. Al-  
though anticonvulsant therapy has not been used in the few  
instances of overdosage reported, it may be indicated in a severe  
case.

**How Supplied:** Suspension (250 mg./5 ml. tsp.), raspberry flavored,  
bottles of 4 fluidounces and 1 pint.  
Caplets of 250 mg., scored, bottles of 56 and 1000.  
Caplets of 500 mg., scored, bottles of 56, 500, and 1000.



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*An exciting opportunity to be among the first to establish your new office  
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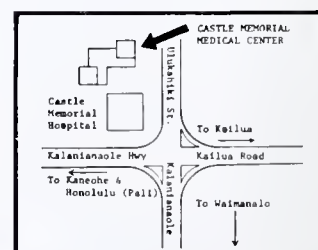
A beautifully designed Twin-Tower Medical-Dental Facility joined by a ground-level Lobby. Located adjacent to Castle Memorial Hospital. Each Tower, of approximately 36,000 sq. ft., serviced by twin elevators and offering underground tenant parking.

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Telephone 922-2351

Physician's Report of Services Rendered HAWAII MEDICAL SERVICE ASSOCIATION The Blue Shield Plan For Hawaii

MEMBERSHIP NUMBER 654023	COV. 7 04	PATIENT'S FIRST NAME Mary	CHECK ONE 3 ADULT MALE 4 ADULT FEMALE 7 JUV 8 BOYS	BIRTH DATE MO DAY YEAR 7 1 23	SERVICE DATES FROM MO DAY YEAR TO MO DAY YEAR 7 4 72 10 72
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SUBSCRIBER'S NAME John Smith	PHYSICIAN'S NAME N. E. Doktor, M.D.	PROVIDER NO. 0012
ADDRESS (IF NOT IN STATE OF HAWAII)	STATE	ZIP CODE

OTHER MEDICAL COVERAGE? YES NO	NAME OF CARRIER	DATE 7/4/72	POSTAL WORKMEN'S COMPENSATION OR LIABILITY RANGE
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PATIENT'S COMPLAINT	DATE OF ONSET 7/4/72	DIAGNOSIS Suture of laceration	LOCATION: 7-ers NAME OF HOSPITAL
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SURGICAL PROCEDURE (USE S-100)	DATE 7/4/72	IN-PATIENT	MO DAY YEAR 7 4 72
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OFFICE VISIT	CHECK IF NEW PATIENT	DATE 7/10/72	3
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HOSPITAL VISIT	DATE 7/10/72	3	00
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LABORATORY (Itemize)	UA	3	00
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X-RAYS (NO. OF VIEWS) (Itemize)		3	00
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IMMUNIZATIONS (Itemize)	99700	3	00
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DRUG	999	3	00
INJECTION	999	3	00
TAX	99980	3	00
LESS PAID BY PATIENT	9982	3	00

FOR DESCRIPTION OF UNUSUAL OR COMPREHENSIVE SERVICE USE REVERSE SIDE	NET CHARGE	37	00
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REMARKS:	DOCTOR'S SIGNATURE N. E. Doktor, M.D.	DATE 7/10/72
----------	--	-----------------



Hawaii Medical Service Association



# What's on your patient's face...

may be more important than his chief complaint

Patient P.T.\* seen on 3/29/67 shows typical lesions of moderately severe keratoses. Note residual scarring on ridge of nose from previous cryosurgical and electrosurgical procedures.



Patient P.T.\* seen on 6/12/67, seven weeks after discontinuation of 5% FU cream. Reaction has subsided. Residual scarring not seen except that due to prior surgery. Inflammation has cleared and face is clear of keratotic lesions.



\*Data on file,  
Hoffmann-La Roche  
Inc., Nutley, N.J



**The lesions on his face  
are solar/actinic—  
so-called "senile" keratoses...  
and they may be premalignant.**

### **Solar, actinic or senile keratoses**

These lesions may be called by several names, but they usually can be identified by the following characteristics. The typical lesion is flat or slightly elevated, of a brownish or reddish color, papular, dry, rough, adherent and sharply defined. They commonly occur as multiple lesions, chiefly on the exposed portions of the skin.

### **Sequence of therapy— selectivity of response**

After several days of therapy with Efudex® (fluorouracil), erythema may begin to appear in the area of the lesions; this reaction usually reaches its height of unsightliness and discomfort within two weeks, declining after discontinuation of therapy. This reaction occurs in affected areas. Since the response is so predictable, lesions that do not respond should be biopsied.

### **Acceptable results**

Treatment with Efudex provides highly favorable cosmetic results. Incidence of scarring is low. This is particularly important with multiple facial lesions. Efudex should be applied with care near the eyes, nose and mouth.

Before prescribing, please consult complete product information, a summary of which follows:

**Indications:** Multiple actinic or solar keratoses.

**Contraindications:** Patients with known hypersensitivity to any of its components.

**Warnings:** If occlusive dressing used, may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

**Precautions:** If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

**Adverse Reactions:** Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, searring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

**Dosage and Administration:** Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

**How Supplied:** Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)-aminomethane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.

Cream, 25-Gm tubes—containing 5% fluorouracil in a vanishing cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).



Roche Laboratories  
Division of Hoffmann-La Roche Inc.  
Nutley, N.J. 07110

**This patient's lesions were resolved with**

**Efudex®  
fluorouracil/Roche®**

**5% cream/solution...a Roche exclusive**



# Opinion & Dialogue

## Is there a need for a drug compendium?

A drug compendium of the type I envision would fill a definite need for the practicing physician. Such a compendium would give him all the information necessary for using

a drug intelligently, and it would do so in a clear, concise, convenient, objective and balanced fashion.

### What a Compendium Should Contain

I believe the compendium should inform the doctor what a drug will do, when he should use for what type of patient, for how long, in what dose, what benefits his patient is likely to obtain, the risks involved, and cross-reaction with other drugs.

The information would be based on the package insert and have the same legal status. In fact a complete compendium with complete and current information might even eliminate the necessity

### Government Health Official

Henry E. Simmons, M.D.  
Deputy Assistant  
Secretary for Health  
Department of Health,  
Education and Welfare



### Maker of Medicine

Joseph F. Sadusk, Jr., M.D.  
Warner-Lambert Company



A drug compendium, or preferably compendia, should, I believe, be private, not federal, in sponsorship. They should contain comprehensive listings of drugs available for prescribing. They should be single, legibly printed volumes of reasonable size, updated quarterly or semiannually and completely revised every year.

### Function of a Compendium

A compendium should furnish the following information on drugs in the following order: indications for use, side effects, adverse drug reactions, contraindications, drug interactions, drug dosage and the dosage forms marketed. Drug prices should not be included because they vary so widely and change rapidly.

No compendium should set forth drugs of choice or discuss relative efficacy. Such questions must be left for the practicing physician to decide, whether on the basis of the medical literature, his own clinical experience, advice of colleagues, information supplied by manufacturers, and so on.

Nor should a compendium undertake to educate the doctor on how to use drugs. Rather, it must be a reference source designed primarily to refresh his memory as to drugs he may not use regularly. It

a package insert in many instances. This would constitute a substantial saving for the manufacturer.

By a complete compendium, I do not mean a volume of prohibitive size. You don't need a book describing 25,000 products with an enormous amount of repetition. Rather, drugs should be arranged by class. Mutually applicable information would be provided, along with brief discussions pinpointing differences in specific drugs of each class. Listings would be cross-indexed in a useful way.

### Other Available Documents as Sources of Information

Existing references such as PDR and the AMA Drug Evaluation are obviously useful but they are not complete. Either they are not cross-referenced by generic name and do not group drugs with similar characteristics, or they do not list all the available and legally marketed drugs. And some of those omitted may be very useful.

could in no way imply control over the practitioner's prerogatives.

### Why Another Compendium?

A practicable, single-volume compendium cannot, nor is it necessary to, include all drugs on the market today. From my practice of internal medicine for some 35 years, my experience as a consultant, and as a faculty member at four or five medical schools, I could estimate that a doctor uses only 30 to 35 drugs regularly. The 1972 Physicians' Desk Reference, incidentally, contained about 500 entries.

As to whether there should be a federal compendium, in my opinion, as stated earlier, the answer is easy—there should *not* be one. The proposal assumes that existing compendia are inadequate. We're not sure of that at all. Whatever its imperfections, the present drug information system in the U.S. is open, multifaceted, pluralistic and extensive. Good compendia exist, as well as other ample sources on drug therapy, ranging from journal literature through AMA Drug Evaluation to company materials. Not all physicians may use such sources as often or as well as they should, but that is the fault of the man, not of the sources.

In any event, rather than pro-

On the other hand, drugs made by more than one supplier, tetracycline for example, may be fully described a dozen times in the same book.

While perhaps PDR could be rearranged and cross-indexed with generics included, and while the AMA Drug Evaluation might also be modified and expanded, I am not sure that the end result would have all the attributes required for a useful compendium. At the same time, you would run the risk of amassing a voluminous and unwieldy tome.

### Should Editorial Comments Accompany the Listings?

Subjective judgments, in my opinion, have no place in a compendium. However, if there is substantial evidence based on a sound body of science concerning relative efficacy of several drugs, certainly that information should be included. The committee of experts compiling and editing a particular section would also have to assess

duce another book, it makes much more sense to work on improving existing compendia, and perhaps they could, as knowledge advances, include more accumulated clinical data and experience, and more information on drug interactions and adverse reactions.

### Implications of a Federal Compendium

Take a hard look at the implications of a federal compendium. It would have the force of law, virtually dictating what drugs to use and how to use them. In effect, it would be a regulatory document with legal or quasi-legal status, posing medical/legal problems similar to those the doctor may now encounter if and when he departs from the provisions of the package insert. A compendium under federal aegis would tend to restrict decisions on drug therapy to one orthodox level—a most dangerous trend for medicine.

### New Compendium—A Medical Option

I detect no ground swell of initiative or support whatsoever for a federal compendium—or, for that matter, for a new compendium of any type. A 1969 PMA survey conducted by Opinion Research Corporation found that only 15 per

and indicate instances where a meaningful difference between drugs is pertinent.

### Sponsorship, Compilation and Editing

Producing a book like this would undoubtedly be difficult and demanding. It would obviously take a great deal of talent and expertise, and would require a varied and experienced group, ranging from writers and editors to highly skilled clinicians and pharmacologists. Style, format and clarity of language would play an important part in determining the usefulness of the book. And it should be updated periodically and completely revised annually.

I have no opinion whether the government or the private sector should sponsor and/or finance the compendium. What is most important is that the compendium be an authoritative, objective and useful source of information for the doctor to have at hand as a ready reference.

cent of those physicians interviewed felt a new compendium was needed. And a large majority did not favor the involvement of the federal government if one were to be created, preferring instead a nongovernmental consortium.

Even if we come to a time when the medical profession itself opts for a new kind of compendium, it should be handled and financed, ideally, outside both government and industry. Final review and editorial authority could be delegated, say, to specialty bodies and medical societies—but above all, *not* the government.

Surely the health care system in the United States has far more vital matters to consider than the extensive cost and effort that would have to go into the preparation and maintenance of a new, monolithic compendium, and especially one bearing the imprimatur of the federal government.

### Opinion & Dialogue

What is your opinion, doctor? We would welcome your comments.

The Pharmaceutical  
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# how to civilize the of peptic ulcer...

give pain killers?...prescribe frequent eating?...use antacids only

## give pain killers only?

They relieve pain but may cause patient drug dependency and unnecessary sedation.

## prescribe frequent eating only?

Frequent feeding helps buffer acid, but caloric, digestive, and social considerations make frequent eating both difficult and impractical.

## use antacids only?

Antacids, like food, help neutralize or buffer stomach acidity. Their action is short, usually lasting only 1 to 1½ hours (given four hours after a meal)\*. Some patients may require antacids every half hour.



# When you add Pro-Banthine<sup>®</sup> you

brand of  
propantheline bromide

**Indications:** Pro-Banthine is effective as adjunctive therapy in the treatment of peptic ulcer. Dosage must be adjusted to the individual.

**Contraindications:** Glaucoma, obstructive disease of the gastrointestinal tract, obstructive uropathy, intestinal atony, toxic megacolon, hiatal hernia associated with reflux esophagitis, or unstable cardiovascular adjustment in acute hemorrhage.

**Warnings:** Patients with severe cardiac disease should be given this medication with caution.

Fever and possibly heat stroke may occur due to anhidrosis.

In theory a curare-like action may occur, with loss of voluntary muscle

control. For such patients prompt and continuing artificial respiration should be applied until the drug effect has been exhausted.

Diarrhea in an ileostomy patient may indicate obstruction, and this possibility should be considered before administering Pro-Banthine.

**Precautions:** Since varying degrees of urinary hesitancy may be evidenced by elderly males with prostatic hypertrophy, such patients should be advised to micturate at the time of taking the medication.

Overdosage should be avoided in patients severely ill with ulcerative colitis.

**Adverse Reactions:** Varying degrees of drying of salivary secretions may

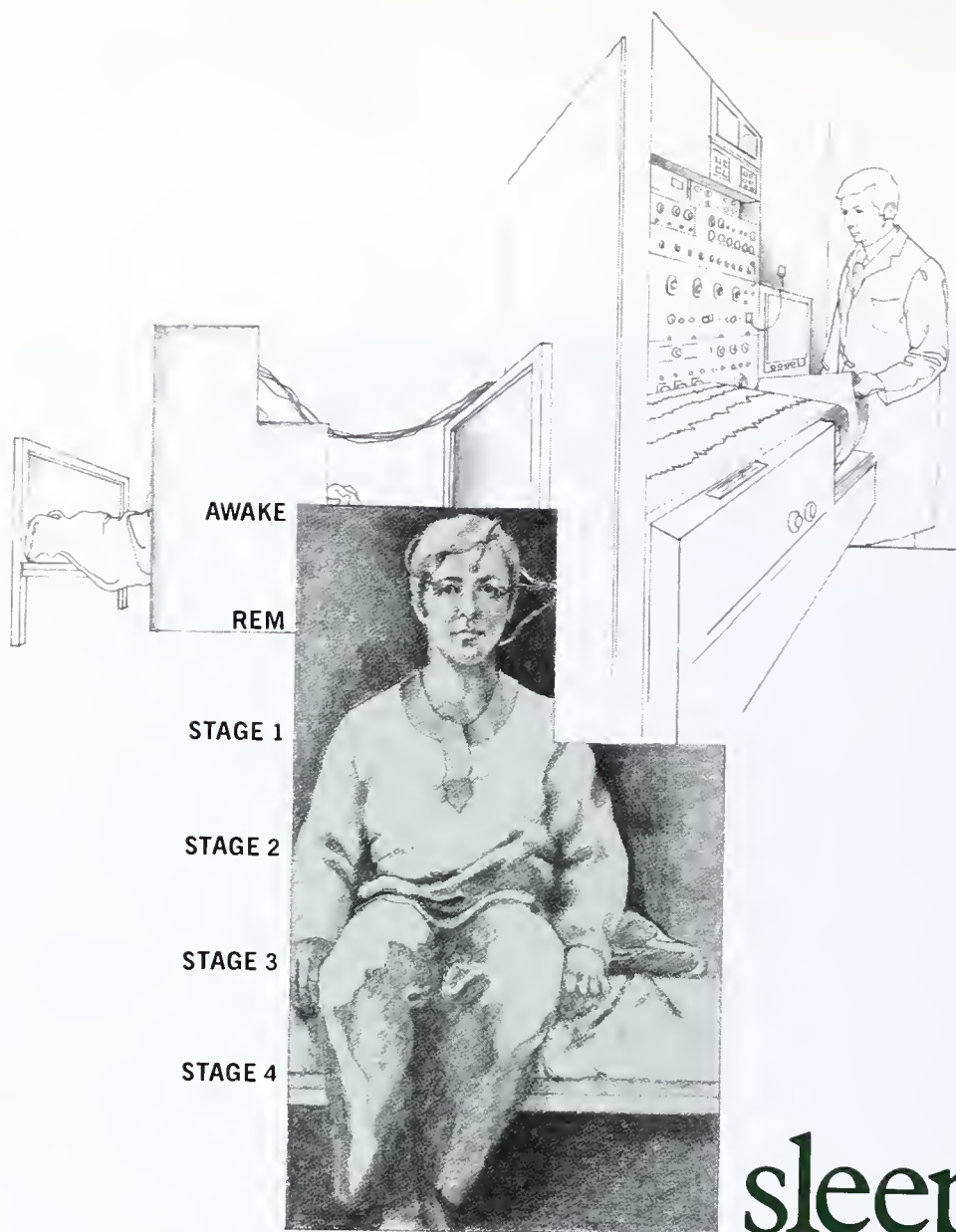
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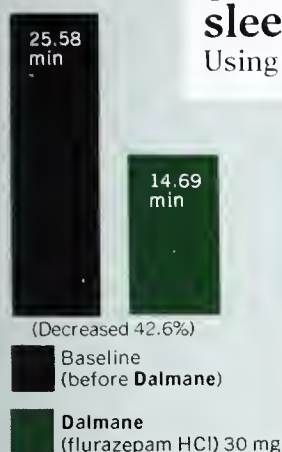


sleep  
begins within  
17 minutes, on average ...  
an initial benefit of

**Dalmane<sup>®</sup>**  
(flurazepam HCl) proved by a  
22-night clinical study of insomnia patients  
in the sleep research laboratory and at home<sup>1</sup>

Three insomnia patients selected for difficulty falling asleep were administered Dalmane (flurazepam HCl) 30 mg for 14 consecutive nights. Placebo was given for four nights prior to and four nights after Dalmane. Physiologic tracings on Dalmane nights 1-3 showed sleep induction time averaged 13.90 minutes; on Dalmane nights 12-14, 18.80 minutes. Combined average for the 6 monitored drug nights was 16.35 minutes.<sup>1</sup>

Average Time Required  
to Fall Asleep (4 Studies,  
16 Subjects<sup>2-5</sup>)



## confirmed by clinical studies in four geographically separated sleep research laboratories<sup>2-5</sup>

Using a 14-night protocol involving eight insomniac and eight normal subjects, four studies confirmed the sleep-inducing effectiveness of Dalmane (flurazepam HCl) and the reproducibility of this response. On average, one 30-mg capsule induced sleep within 17 minutes. In all these studies, Dalmane induced sleep rapidly, reduced nighttime awakenings, and provided 7 to 8 hours of sleep without repeating dosage<sup>2-5</sup>

## Dalmane (flurazepam HCl) induces and maintains sleep, with relative safety

Dalmane is generally well tolerated; morning "hang-over" has been relatively infrequent. While dizziness, drowsiness, lightheadedness and the like have been noted most often, particularly in the elderly and debilitated, physicians should be aware of the possibility of more serious reactions, as noted below.

Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:

**Indications:** Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

**Contraindications:** Known hypersensitivity to flurazepam HCl.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

**Precautions:** In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

**Adverse Reactions:** Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdose, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, e.g., excitement, stimulation and hyperactivity, have also been reported in rare instances.

**Dosage:** Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

**Supplied:** Capsules containing 15 mg or 30 mg flurazepam HCl.

**REFERENCES:** 1. Kales A, et al: *Arch Gen Psychiatry* 23:226-232, Sep 1970

2. Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington DC, May 3-7, 1971

3. Frost JD Jr: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ

4. Vogel GW: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ

5. Dement WC: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ



when restful sleep  
is indicated

# Dalmane<sup>®</sup> (flurazepam HCl)

**One 30-mg capsule h.s. — usual adult dosage**  
(15 mg may suffice in some patients).

**One 15-mg capsule h.s. — initial dosage for**  
**elderly or debilitated patients.**

- induces sleep within 17 minutes, on average
- reduces nighttime awakenings
- sustains sleep 7 to 8 hours, on average, without repeating dosage

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sion has people with legal, tax and accounting experience, backed by our own computer center. And whether you own a house, apartment, condominium, office tower or land itself, there's no project we can't handle.

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# Opinion & Dialogue

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#### **Other Available Documents as Sources of Information**

Existing references such as PDR and the AMA Drug Evaluation are obviously useful but they are incomplete. Either they are not cross-referenced by generic name and do not group drugs with similar characteristics, or they do not list all the available and legally marketed drugs. And some of those omitted may be very useful.

should in no way imply control over the practitioner's prerogatives.

#### **Why Another Compendium?**

A practicable, single-volume compendium cannot, nor is it necessary to, include all drugs on the market today. From my practice of internal medicine for some 25 years, my experience as a consultant, and as a faculty member of four or five medical schools, I would estimate that a doctor uses only 30 to 35 drugs regularly. The 1972 Physicians' Desk Reference, incidentally, contained about 2,500 entries.

As to whether there should be a federal compendium, in my opinion, as stated earlier, the answer is easy—there should *not* be one. The proposal assumes that existing compendia are inadequate. We're not sure of that at all. Whatever its imperfections, the present drug information system in the U.S. is open, multifaceted, pluralistic and extensive. Good compendia exist, as well as other ample sources on drug therapy, ranging from journal literature through AMA Drug Evaluation to company materials. Not all physicians may use such sources as often or as well as they should, but that is the fault of the man, not of the sources.

In any event, rather than pro-

On the other hand, drugs made by more than one supplier, tetracycline for example, may be fully described a dozen times in the same book.

While perhaps PDR could be rearranged and cross-indexed with generics included, and while the AMA Drug Evaluation might also be modified and expanded, I am not sure that the end result would have all the attributes required for a useful compendium. At the same time, you would run the risk of amassing a voluminous and unwieldy tome.

#### **Should Editorial Comments Accompany the Listings?**

Subjective judgments, in my opinion, have no place in a compendium. However, if there is substantial evidence based on a sound body of science concerning relative efficacy of several drugs, certainly that information should be included. The committee of experts compiling and editing a particular section would also have to assess

duce another book, it makes much more sense to work on improving existing compendia, and perhaps they could, as knowledge advances, include more accumulated clinical data and experience, and more information on drug interactions and adverse reactions.

#### **Implications of a Federal Compendium**

Take a hard look at the implications of a federal compendium. It would have the force of law, virtually dictating what drugs to use and how to use them. In effect, it would be a regulatory document with legal or quasi-legal status, posing medical/legal problems similar to those the doctor may now encounter if and when he departs from the provisions of the package insert. A compendium under federal aegis would tend to restrict decisions on drug therapy to one orthodox level—a most dangerous trend for medicine.

#### **New Compendium — A Medical Option**

I detect no ground swell of initiative or support whatsoever for a federal compendium—or, for that matter, for a new compendium of any type. A 1969 PMA survey conducted by Opinion Research Corporation found that only 15 per

and indicate instances where a meaningful difference between drugs is pertinent.

#### **Sponsorship, Compilation and Editing**

Producing a book like this would undoubtedly be difficult and demanding. It would obviously take a great deal of talent and expertise, and would require a varied and experienced group, ranging from writers and editors to highly skilled clinicians and pharmacologists. Style, format and clarity of language would play an important part in determining the usefulness of the book. And it should be updated periodically and completely revised annually.

I have no opinion whether the government or the private sector should sponsor and/or finance the compendium. What is most important is that the compendium be an authoritative, objective and useful source of information for the doctor to have at hand as a ready reference.

cent of those physicians interviewed felt a new compendium was needed. And a large majority did not favor the involvement of the federal government if one were to be created, preferring instead a nongovernmental consortium.

Even if we come to a time when the medical profession itself opts for a new kind of compendium, it should be handled and financed, ideally, outside both government and industry. Final review and editorial authority could be delegated, say, to specialty bodies and medical societies—but above all, *not* the government.

Surely the health care system in the United States has far more vital matters to consider than the extensive cost and effort that would have to go into the preparation and maintenance of a new, monolithic compendium, and especially one bearing the imprimatur of the federal government.

#### **Opinion & Dialogue**

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...prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary.

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**Warnings:** Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia ( $> 5.4$  mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities.

Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently — both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

**Precautions:** Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

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\*Serum Potassium Level Drops During Long-Term Exercise, *Medical Tribune*, July 4, 1973.

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# Case Reports

## Congenital Toxoplasmosis in Hawaii

ALISTAIR G. S. PHILIP,\* M.B., M.R.C.P.(E.), D.C.H., and

GORDON D. WALLACE,† D.V.M., M.P.H., Honolulu

● *Toxoplasmosis has attracted considerable attention in recent years, with the delineation of the epidemiology of the infection, and in particular the role that cats may play in its transmission.<sup>1, 2</sup> This interest has extended to the lay press.*

*Because there is considerable variation in the incidence of infection due to *Toxoplasma gondii*, in different areas, it is important to know whether or not a problem exists in any given location.*

*Evidence that toxoplasmosis causes human disease in Hawaii was presented a few years ago,<sup>3</sup> and it was postulated that many cases may go undetected.*

*The only case of congenital toxoplasmosis in Hawaii reported in the literature appeared more than 20 years ago, when Tilden<sup>4</sup> reported a low-birth-weight Filipino infant who died at 19 hours of age with massive destruction of the brain.*

*The present report describes 9 cases of congenital toxoplasmosis encountered quite recently in Hawaii, which illustrate the broad spectrum of disease that may be caused by *T. gondii*. Three infants diagnosed during the neonatal period, an asymptomatic infant and three others diagnosed retrospectively, were born to Filipino mothers.*

### Case Reports Proven Cases

#### Baby B.

This 6-pound, 9-ounce (2,977 grams) boy was born in Wahiawa to Filipino parents on June 26, 1971, by caesarean section at approximately 36 weeks' gestation, because membranes had been ruptured for 32 hours.

Petechiae and ecchymoses were noted at birth, and the baby appeared pale. Peripheral blood revealed anemia (hemoglobin 9.6 gm%) and a depressed platelet count (85,000/mm<sup>3</sup>).

At approximately 5 hours of age, the baby had a temperature of 103° F. (rectal), whereupon specimens from several sites (eg, blood, urine, etc.) were collected for bacterial cultures and the baby started on ampicillin and kanamycin because of the possibility of bacterial sepsis. However, bacterial cultures were negative.

Minimal jaundice was noted at 15 hours of age, and there was significant splenic enlargement (approximately 4 cm below the costal margin) and probable liver enlargement.

Platelets decreased to 18,000/mm<sup>3</sup> by 24 hours and remained severely depressed for more than 2 weeks.

The baby required three exchange transfusions for hyperbilirubinemia, with the maximum bilirubin occurring before the second exchange transfusion (total bilirubin 36.2 mg%, with direct and indirect fractions, 8.6 and 27.6 mg% respectively).

Urine, stool, and throat swabbings were sent for virus isolation and blood for complement-fixation tests (particularly rubella, herpes, and cytomegalovirus), but these were negative; no intracranial calcifications were noted on skull x-ray; and liver enzyme studies were within normal limits.

Blood collected from the baby prior to exchange transfusion was tested for *Toxoplasma* antibody by a Sabin-Feldman dye test<sup>5</sup> which revealed a titer of 1:8,192. This was substantiated 2 weeks later, at which time mother's serum revealed a titer of 1:32,768.

An ophthalmological examination at 3 weeks of age revealed bilateral chorioretinitis. The in-

\* Kapiolani Hospital, and the Department of Pediatrics, University of Hawaii Medical School, Honolulu, Hawaii.

† Pacific Research Section, Laboratory of Parasitic Diseases, National Institute of Allergy and Infectious Disease, National Institutes of Health, Honolulu, Hawaii.

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fant was treated for one month with sulfadiazine and pyrimethamine, and currently is well except for a severe visual defect.

#### *Baby R.\**

This 4-pound, 1-ounce (1,843 grams) girl was born on March 13, 1972, to a 31-year-old primigravid Filipino, who had had antepartum hemorrhage, at 34 weeks' gestation. Apgar scores were 4 and 7 at 1 and 5 minutes respectively and the baby required resuscitation with an endotracheal tube, and was grunting when admitted to the nursery. Because of this, the infant was transferred to the Pediatric Pulmonary Center at Children's Hospital, where the baby was noted to be rather unresponsive and to have a moderate-intensity systolic murmur down the left sternal edge, a greatly enlarged liver, and a possibly enlarged spleen. Arterial blood gases on admission (in 60% oxygen) were satisfactory, but the pH was only 6.72. The white blood count was 29,000/mm<sup>3</sup>, with 95% lymphocytes. Heart size was greatly increased on chest x-ray. The baby's condition rapidly deteriorated, and she died after 6½ hours of life.

The possibility of an encephalitis-myocarditis syndrome due to Coxsackie B virus infection was entertained, and blood was taken for tests for both Coxsackie virus and Toxoplasma antibodies, and urine, stool and throat swabbings were collected for virus isolation. Viral studies were negative, but dye-test titers of 1:2,048 and 1:32,768 respectively were found in the baby's and mother's sera.

At autopsy, 250 cc of cloudy yellow fluid poured out of the calvarium and the brain collapsed. The major features were massive necrosis and liquefaction of almost the whole of the cerebral hemispheres, the cerebellum and brain stem. There was pericarditis with a pericardial effusion, the liver and spleen were 2 and 3 times their expected weight, the thymus was involuted, and there was bone marrow hyperplasia.

On microscopic examination, cysts resembling *T. gondii* were identified in the lung and the brain.

#### *Baby M.*

This 3-pound, 15-ounce (1,786 grams) boy was born to young Filipino parents, in Honolulu on May 2, 1972, at 36 weeks' gestation. Mother was a primigravida, but received no prenatal care. On questioning, she reported having had a sore throat, with lymph node swelling, in mid-pregnancy. The amniotic fluid was somewhat meconium-stained, but the Apgar scores were 9 and 10 at 1 and 5 minutes respectively.

Although "small for dates," the baby appeared well for the first 5 days, when some degree of abdominal distension (thought to be due to liver enlargement) was noted. At this time a dye-test titer of over 1:512 in cord blood was reported. Over the next 2 days, hepatosplenomegaly became more apparent, and abdominal venous distension quite pronounced. A spinal tap was unhelpful because it was "traumatic." Skull x-ray showed no calcifications. Liver enzymes were only mildly elevated. Treatment with sulfadiazine and pyrimethamine was started and the final dye-test titer of cord blood was reported as 1:131,072. Leukopenia, noted at one month, responded to folic acid.

Chorioretinitis was not noted in this baby in the nursery, but was observed at follow-up at approximately 2 months of age. He progressed slowly in the first year of life, but is now doing better, although there is a significant visual defect.

#### *Baby T.*

This girl weighed 6 pounds, 3½ ounces (2,821 grams) when she was born to Filipino parents in Honolulu on September 16, 1973. She has been completely asymptomatic, but a cord-blood dye-test titer of 1:256 had risen to 1:4,096 by 8 months of age.

Neurologic evaluation was recommended, but parents failed to attend on two occasions.

#### *L. Twins*

Twins born January 19, 1971, on Maui to Caucasian parents at 38 weeks' gestation. Twin "A", girl, 4 pounds, 12 ounces (2,155 grams) at birth, had slow development. At 9-months she had microcephaly, nystagmus, and bilateral esotropia. Toxoplasma dye-test at this time (November 1, 1971) revealed a titer of 1:32,768, which fell to 1:8,192 by May 2, 1972, and has persisted at this level until age 3 (March 3, 1974).

Twin "B", a girl, thought to have hydrocephalus and other anomalies at birth, with birth weight approximately 4 pounds (1,815 grams), was later reported to have hydranencephaly. Toxoplasmosis titer on November 29, 1971, was 1:131,072 (mother had the same titer on November 1).

#### **Presumed Cases**

##### *E.M.*

This girl was born to Filipino parents in Honolulu on October 30, 1968, with birth weight 4 pounds, 15 ounces (2,240 grams), probably close to term. She was seen by an ophthalmologist at 6-months of age because of left esotropia and wandering nystagmus, but did not return to follow up. The eye abnormalities persisted and at the age

\* To be presented in more detail elsewhere.

of 3 years fundoscopic examination revealed bilateral chorioretinitis of the macular area. The dye-test titer on January 25, 1972 was 1:4,096.

*M.D.*

This girl, born to Filipino parents on June 22, 1969 on Kauai at 36 weeks' gestation, had a birth weight of 4 pounds, 8¼ ounces (2,048 grams) and no early problems. Nystagmus and strabismus were noted at 9-months of age. Funduscopy at nearly 3 years of age, showed marked posterior polar chorioretinitis. The dye-test titer on February 24, 1973, was 1:8,192.

*E.R.*

This girl was born to a Filipino mother on November 19, 1969, in Honolulu, with birth weight 5 pounds, 4 ounces (2,381 grams), probably at term, since peeling of the skin was noted. Hemoglobin was low (10 gm%), but platelets were normal. Because of arching of the back, a lumbar puncture was performed, which revealed normal findings.

Convergent strabismus was noted at 3-months of age, and she was eventually seen at the age of 30 months by an ophthalmologist, who noted bilateral central macular chorioretinal scars with severe loss of central vision. Nystagmus was also noted. The dye-test titer at this time was 1:32,768.

## Discussion

### *Diagnosis and Detection*

Only one well-documented case of congenital toxoplasmosis has previously been reported in Hawaii.<sup>4</sup> It is of considerable interest, in view of the ethnic origin of the majority of the present cases, that that infant was also born to a Filipino mother. The infant died at the age of 19 hours, and the pathological description is strikingly similar to the only fatal case reported here. Another fatal case with almost complete destruction of the cerebral hemispheres has recently been reported from Cincinnati,<sup>6</sup> and this phenomenon has also been alluded to in French babies by Desmonts and Couvreur.<sup>7</sup>

Fatal cases may not be recognized as congenital toxoplasmosis during life, as exemplified by the tentative diagnosis of Coxsackie B infection in Baby R. There is still a great tendency to think of the "classical triad" of hydrocephalus, chorioretinitis, and intracranial calcifications, originally described by Wolf et al.<sup>8</sup> It is now more than a decade since Eichenwald<sup>9</sup> showed that a wide variety of clinical signs may be present, and that the disease may often produce generalized involvement. It is frequently difficult to clinically distinguish other types of congenital infection from

toxoplasmosis, and this has led to the classification of the "TORCH Complex" (toxoplasmosis, rubella, cytomegalovirus and herpes).<sup>10</sup> This form of the disease is typified in both Baby B and Baby M.

In 1967, Miller et al<sup>11</sup> further emphasized the range of clinical signs, and showed that infection was not always manifest by clinical disease. The asymptomatic infant was also described by Eichenwald,<sup>9</sup> and by Desmonts and Couvreur.<sup>7</sup> These latter workers called attention to infants in whom infection may be detected, after the neonatal period, with the discovery of chorioretinitis by the ophthalmologist, often as the result of referral for strabismus (squint). Three cases from Hawaii are examples of this mode of detection. Other infants may remain completely asymptomatic, and considerable doubt exists as to whether or not such infants should be treated if detected.

In an attempt to discover whether or not asymptomatic congenital toxoplasmosis constitutes a problem in Hawaii, we have been conducting prospective studies in our newborn population.<sup>12</sup> In the first study, cord-blood samples from 1,000 consecutive babies born at Kapiolani Hospital were tested with the Sabin-Feldman dye-test. There were 970 samples suitable for analysis, with a total of 46 babies demonstrating positive titers of 1:512 or greater. Of the 46 babies, 13 were Filipino, 12 were part-Hawaiian, 7 Caucasian, 6 Japanese, 4 Samoan, and 4 other mixtures. Of these, 13 had titers equal to or greater than 1:2,048. All but one (Baby M) had a four-fold or more drop in titer by the age of 4 months. Baby M and 7 others with titers of 1:2,048 or greater were of Filipino ancestry. Thus, 13 of 46 (28%) with titers equal to or greater than 1:512, and 8 of 13 (62%) with titers of 1:2,048 or more, were Filipino, although only 10% of the 1,000 babies sampled were Filipino. We concluded that Filipino infants are at relatively high risk for congenital toxoplasmosis in Hawaii.

In a second study (not yet completed), we decided to concentrate on infants born to Filipino mothers. We used a lower dilution (1:128) of serum for screening, because of individual case reports showing initial low titers in some babies subsequently shown to have infection.<sup>13</sup> Of 522 cord-blood specimens tested, 70 showed dye-test titers of 1:128 or more. Twenty of these were equal to or greater than 1:2,048. Of 49 infants tested six months or longer after birth, two (both asymptomatic) showed a significant rise in titer.

The finding of a positive dye-test titer in cord-blood, or in peripheral blood obtained from a newborn in the first 3 or 4 weeks of life, does not of itself constitute evidence of congenital infection of the neonate with *T. gondii*. It does indicate that



at some time, either during or before pregnancy, the mother acquired the infection; but the percentage of infants who acquire the disease, even when maternal infection occurs during pregnancy, seems to be quite variable. Desmonts and Couvreur<sup>7</sup> showed that approximately 45% of babies will be infected, but two-thirds may demonstrate no symptoms or signs. A more recent report from England showed no evidence of toxoplasmosis in 10 offspring of 9 mothers infected during pregnancy.<sup>14</sup> The results of the survey at Kapiolani Hospital indicate that although quite a significant number of cord sera demonstrate a positive *Toxoplasma* dye-test titer (greater than or equal to 1:512), congenital infection is not very common.

Preliminary results from the study on Filipino babies mentioned above show that there may indeed be undetected asymptomatic cases of congenital toxoplasmosis in Hawaii. The possibility that the detection of asymptomatic infection could lead to institution of specific therapy has recently assumed greater importance, since Alford and colleagues<sup>13, 15</sup> have suggested that untreated asymptomatic infection may result in intellectual deficits. They also showed<sup>13</sup> that gestational prematurity may be more frequent than previously suspected. Our cases show a high incidence of low birth weight, and most demonstrate intra-uterine growth retardation.

### Epidemiology and Prevention

Although detection of infection is important, it is obviously more desirable to *prevent* infection (at least during pregnancy), if possible. It has been well documented that the number of women demonstrating a dye-test titer progressively increases with age. In many tropical communities<sup>16</sup> and in Paris<sup>17</sup> as many as 80% or more of women entering the child-bearing years reveal titers indicative of previous infection. However, a limited survey for *Toxoplasma* antibody in residents of Oahu by one of us (G.D.W.) suggested that 50-75% of the child-bearing population of Hawaii is at risk of acquiring infection during pregnancy.

There is evidence that an important mode of transmission of *T. gondii* is through the consumption of raw or partly cooked meat,<sup>18, 19</sup> but recent experimental and epidemiologic studies have called attention to the role of cats in the spread of toxoplasmosis infection.<sup>1, 2, 20, 21</sup> The former mode of transmission may possibly explain the prevalence of infants of Filipino extraction in this report. Certain "delicacies" enjoyed by the Filipino population involve undercooked meat. One of our cases was associated with ingestion of raw goat meat. The degree, if any, of exposure to cats or cat feces was unknown in the present cases, but this mode of transmission could not be ruled out.

The direct mode of transmission in our population must remain uncertain without careful prospective epidemiological studies. The possibility that cockroaches and flies may also be implicated is a more recent hypothesis.<sup>22</sup>

The postulated life cycle of toxoplasmosis has been outlined by Frenkel.<sup>23</sup> There seems little doubt that it is sound advice to warn any pregnant (or potentially pregnant) woman to avoid eating raw or undercooked meat, and to take particular care to avoid contact with cat feces. Frenkel<sup>24</sup> has summarized his recommendations for breaking the transmission chain as follows:

- 1) Feed your cat only dried, canned, or cooked meat.
- 2) Keep your cat from foraging.
- 3) Change litterboxes daily; disinfect them with boiling water.
- 4) If pregnant, wear plastic gloves or delegate maintenance of the cat to someone else.
- 5) Use work gloves when working in soil contaminated with cat feces.
- 6) Cover children's sandboxes when not in use.
- 7) Control stray cats.
- 8) Control flies and cockroaches.
- 9) Avoid eating raw meat; heat all meat at 150° F. throughout.
- 10) Wash hands before meals and before touching the face.

### Treatment

Treatment with pyrimethamine and sulfadiazine, available for many years, is felt to be effective. However, such treatment is not without complications, and probably only prevent further spread of the disease, rather than being curative (as demonstrated by Babies B and M). Minimum duration of therapy seems to be a month, according to both Frenkel<sup>23</sup> and Remington.<sup>25</sup> Folinic acid may help to prevent leukopenia, and when used prophylactically<sup>23</sup> may even allow one to reduce blood sampling to a bare minimum. It seems wise to repeat white blood counts at weekly intervals during treatment.

The place of therapy in asymptomatic infection remains quite uncertain, we don't know whether or not therapy can prevent late manifestations (eg, chorioretinitis).

Chorioretinitis may not be apparent in the neonatal period (Baby M), but despite appropriate therapy may reveal itself by 2 or 3 months. However, since some infants with serologic evidence of congenital toxoplasmosis may remain asymptomatic for as long as 2 years *without* treatment<sup>17</sup> if early treatment were instituted, one might incorrectly attribute this "prevention" to treatment. Despite Frenkel's view<sup>23</sup> that "all babies with congenital toxoplasmosis, even if asymptomatic, should be treated," further controlled trials are

needed to confirm the preliminary observation of Alford's group that early treatment improves developmental quotient.<sup>15</sup>

It seems desirable to direct future efforts toward therapy which is more specifically curative, or less potentially toxic. Spiramycin has recently been used in Europe<sup>13, 17</sup> with apparent success both during pregnancy and in the first year of life, but it is not yet available in the U.S.A.

A greater awareness of the broad spectrum of disease associated with congenital toxoplasmosis provides the best hope that infants who need treatment will receive it.

### Conclusion

Congenital toxoplasmosis occurs in Hawaii, and may present clinically in one of several ways. Evidence suggests that some asymptomatic infections may be overlooked. Treatment is available for this infection.

Since the dye-test or indirect fluorescent antibody test for toxoplasmosis can be performed on blood collected on a small filter paper disc,<sup>5</sup> all babies born in the State of Hawaii could potentially be examined, and if an elevated titer is detected, a follow-up could be performed. A prospective study of treatment in the asymptomatic infants could then be initiated.

### Summary

Nine cases of congenital toxoplasmosis have recently been seen in Honolulu, with a wide variety of presenting features. Evidence suggesting the occurrence of asymptomatic congenital toxoplasmosis in Hawaii was also obtained. The Filipino population in Hawaii may be at greater risk for this infection, possibly as the result of transmission in undercooked meat, although contact with cats may also be important in acquiring the infection. Treatment is available, but its effectiveness (particularly in asymptomatic infections) is uncertain. Early detection via routine screening of cord-blood or blood from the newborn infant is possible.

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## The Pre-Entrance College Health Examination—A Study of its Cost and Usefulness at the University of Hawaii Student Health Service

DONALD F. B. CHAR, M.D. and DOROTHY MATSUO, B.S., MPH., *Honolulu*

IN A LETTER to the editor of *American Medical News*, a physician<sup>1</sup> complained about performing pre-college physical examinations. He stated, "The most fruitless time I spend is doing pre-college physical examinations. I don't recall detecting one unsuspected disease in this group in the last ten years. This is a total waste of the physician's time and the student's money."

This criticism, which seems to prevail within our American medical community, may reflect a deep malaise regarding this medical activity. In 1963, Dr. J. H. Flinn<sup>2</sup> of the University of Rochester concluded that pre-entrance medical examinations by off-campus physicians were a disservice to students. Based upon a followup campus interview of 100 students, he pointed out that 12% had not been examined at all, 44% had not been disrobed for the examination, 28% had only a medical history taken, and only 10% had received a comprehensive examination.

Subsequent investigators have pointed out that the experience at the University of Rochester was overly negative and could not be documented elsewhere.<sup>3-4</sup> In fact, more and more college health services are requiring pre-entrance examinations to be performed off campus by private physicians.

Another common criticism of this procedure comes from the consumer population. Students and college administrators may complain that the health examination costs too much. Combined with the foregoing criticism by physicians, it is no wonder that this procedure has become controversial, its true values inadequately recognized. Provider and consumer both continue to look at this procedure solely as a screening and detecting process.

To challenge the idea that pre-entrance health

cost of this health activity in Hawaii was undertaken. In addition, all of the health forms submitted to the University of Hawaii, Manoa, for fall semester, 1970, were submitted to an evaluation procedure and the results tabulated and analyzed. Cost analysis was based upon a questionnaire mailed out to every practicing physician in the state listed by the Hawaii Medical Association. This questionnaire asked each physician what he charged for completing the health form that was enclosed, for a new patient and for a continuing patient in his practice.

### Methods

All new students registering for day classes at the University of Hawaii Manoa Campus are required to submit a health form prior to enrollment. This health form is adapted from a basic form recommended by the American College Health Association. Many college health services use a similar form or one designed for computer scanning.

The form is sent to the student after he has been accepted by the University academically and is not a condition for acceptance. It is handled solely by health professionals in the Student Health Service, evaluated and stored as a confidential examination. Overpriced, an evaluation of the document, never entering into any of the institution's administrative processes. For foreign students, however, an entry visa will not be issued by the government until this health form has been approved by the Student Health Service. This special requirement is mainly to prevent the entry of active cases of tuberculosis into the college community.

For fall semester, 1970, 4,443 health forms were submitted by prospective students. Each form was reviewed by a nurse, who noted the health defects listed on the form. The only two

absolute requirements for approval are a recent health appraisal by a qualified medical practitioner and a tuberculin skin test or chest x-ray negative for active tuberculosis, performed within three-months of enrollment. Laboratory tests, including hemoglobin determination, urinalysis for protein or sugar, and serologic test for syphilis, although recommended, are not required.

The Student Health Service of the University of Hawaii, Manoa, is staffed by a full-time medical director, five half-time physicians, seven nurses, a health service administrator and three clerks. It provides limited primary care. Over 95% of the approximately 40,000 annual visits to the Student Health Service can be cared for on campus. Serious acute illnesses and long-term chronic diseases are generally referred to physicians off campus for management.

The questionnaire concerning charges for performing the health evaluation of an entering student into University of Hawaii, Manoa, was mailed to the 825 active practicing physicians listed as members of the Hawaii Medical Association in November, 1970. The physicians were asked to answer the questions and return the questionnaire in the self-addressed enclosed envelope to the Student Health Service.

Results

Of the 825 physicians surveyed, 270, or 33%, replied. Of these, 75 indicated that they did not perform this service in their office. These included specialists in surgery, pathology, and radiology.

Table 1 indicates the charge for this service to new patients in the private practitioner's office, according to specialty. The range from a low of \$5.00 to a high of \$62.50 reflects the enormous variability with which clinicians view this process. Detailed tabulation reveals that more than 90% of the physicians charged less than \$30.00 to do a health evaluation and to complete the University of Hawaii health form for a new patient who had

just walked into the office for the first time. The average charge for this health service procedure was slightly in excess of \$20.00. Approximately 37% of the respondents were charging less than \$15.00.

Table 2 demonstrates the range of charges for this procedure for a patient previously cared for by the physician. Approximately 85% of the physicians of the state performed this procedure in their office for less than \$25.00. The average cost fell below \$20.00. Approximately 24% of the respondents charged \$10.00 or less to established patients; 50% charged \$15.00 or less.

Among the 4,443 University Health Forms submitted to the Student Health Service for fall semester, 1970, 191 major health defects were noted. Thus, 4.3% of the incoming students had significant pathology, possibly requiring continuing health supervision by a physician. Conditions such as anemia, positive tuberculin tests, or a trace to one-plus proteinuria in the urinalysis, were not included in this group, since these relatively minor defects were only incompletely determined by the entrance appraisal. In view of the various methods of testing for these factors, follow-up evaluations by the Student Health Service are deemed necessary. These minor findings will not be discussed in this paper.

Of the 191 significant health defects noted on the health forms submitted, Table 3 shows the various disease categories. It should surprise no one that psychiatric care tops the list of conditions requiring previous care by a health professional. Many of these individuals had received drug therapy and required follow-up management. Heart patients ranked second in incidence, a quarter of these having a history of rheumatic fever, and several still being managed on penicillin prophylaxis. Hypertension, with blood pressure above 140 mm systolic or 90 mm Hg diastolic, was frequently found, and these individuals were

TABLE 1.—Cost in dollars for evaluating and completing UH health form for new patient.

	NUMBER OF PHYSICIAN RESPONDENTS	\$5-10	\$11-15	\$16-20	\$21-25	\$26-30	\$31-35	\$36-40	\$41-45	\$46-50	\$50	AVERAGE COST
1. General Practice	60	12	18	17	5	5	3					\$15.60
2. Internal Medicine	46	3	6	11	8	8	7	1	1	1		22.75
3. Pediatrics	25	1	4	12	3	3		1	1			23.23
4. Obs-Gyn.	24	4	7	7	3			1			1	20.56
5. General Surgery	12	3	4	1	3						1	20.40
6. Other Specialties*	13	2	6	1	1	2		1				12.22
7. Unspecified	15	2	1	5	3	3		1				
Total	195	27	46	54	26	21	10	5	2	2	2	18.46

Range for Cost: \$5.00-\$62.50

\* Include orthopedics 4, dermatology 3, ENT 2, urology 1, allergy 1, eye 1, neurosurgery 1.



TABLE 2.—Cost in dollars for evaluating and completing UH health form for former patient.

	NUMBER OF PHYSICIAN RESPONDENTS	\$5-10	\$11-15	\$16-20	\$21-25	\$26-30	\$31-35	\$36-40	\$41-45	\$46-50	\$50	AVERAGE COST
1. General Practice	60	16	20	13	6	4	1					\$13.74
2. Internal Medicine	46	6	10	9	8	7	3	2	1			19.19
3. Pediatrics	25	2	6	11	3	1			1	1		20.81
4. Obs-Gyn.	24	4	6	7	4			1		1	1	19.60
5. General Surgery	12	7	1	2	1					1		16.31
6. Other Specialties	13	7	3	1	2							19.73
7. Unspecified	15	4	2	2	3	3		1				12.23
Total	195	46	48	45	27	15	4	4	2	3	1	

Range for Cost: \$5.00-\$62.50

routinely brought into the Health Center for a medical conference. Most of those with elevated blood pressure had had little basic evaluation as to the etiology of their hypertension; generally they were only reassured by their examining physician and advised to follow up this finding in future visits.

Thyroid disorders were noted in 21 individuals, 17 of them females; 12 were hypothyroid, one postoperatively. There were four with goiters, and the remaining five were diagnosed as hyperthyroid. Diabetes mellitus, seizure disorders, gastroduodenal ulcers and chronic diarrhea were less frequent. Though proteinuria of one plus or less was not considered significant in this health form evaluation, seven students with kidney disease had significant pyuria or hematuria, and were convalescing or recovered from nephritis.

Of the three blood dyscrasias noted, one had sickle cell disease, one systemic lupus erythematosus, and one hemophilia.

Obesity is not included in this list, and was seldom mentioned as a health defect on the form. Visual defects, acne, flat feet, and allergies were infrequently mentioned.

TABLE 3.—Significant\* health defects noted on health forms.

1. Psychologic problems	38	20%
2. Heart disease	27	14%
3. Elevated blood pressure (above 140 systolic 90 diastolic)	26	14%
4. Thyroid disorder	21	11%
5. Seizure disorder	13	7%
6. Diabetes mellitus	12	6%
7. Gastrointestinal disease	8	4%
8. Kidney disease	7	4%
9. Asthma	6	3%
10. Tuberculosis, history of active disease requiring treatment	6	3%
11. Intestinal parasites	5	3%
12. Blind	4	2%
13. Rheumatoid arthritis, gout	3	1%
14. Blood dyscrasias	3	1%
15. Hearing loss	3	1%
16. Miscellaneous	9	5%

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\* See text for description of significant health defects.

## Discussion

Medical care programs for college age populations indicate that serious life-threatening diseases are rare. Health problems usually involve the basic risk-taking behavior characteristic of this age group. Accidents, homicide, suicide, and drug problems account for the majority of deaths during this period of life. In the physician's office, minor ailments dominate the service needs, for one is generally dealing with acute respiratory or gastrointestinal disorders, skin diseases, and injuries, as well as acute behavioral and psychologic disorders. Periodic student health evaluations, as they are now done, do not usually find new significant physical pathology. Dvorak and Cowan have indicated that only 2% of incoming students stated that their college entrance health examination discovered new health problems. Yankauer<sup>5-6</sup> demonstrated much earlier that periodic health examinations for school age children have little significance in case finding.

However, to criticize the college pre-entrance health examination as being meaningless or useless, because of its failure to detect significant new pathology, would, once again, seem to go to the heart of the concept of the American medical care system. Is the only goal of periodic health evaluations to pick up medical or organic pathology? Of even greater importance, the question must be asked, "How does the periodic health evaluation activity relate to the total health care concept?"

First of all, one should realize that the majority of American colleges offer organized medical services to their students, as part of the usual student services. These health care services range from complete, comprehensive medical care, including hospital services, to a dispensary, run by a school nurse. Most college health services hire physicians to give primary health care to the students.

One should keep in mind that the college health entrance examination forms are primarily designed to record the state of health and the absence or

presence of health defects of the student, and to transmit this information to the health staff of the institution. This basic document serves to introduce the student, with his set of unique medical care problems, to the college health staff, so that appropriate medical care services may be offered to him in the new environment. At the University of Hawaii, due to its limited health care staff, some students must be counseled for referral off campus to more qualified practitioners and specialists for ongoing medical care; eg, the student with diabetes or nephrotic syndrome.

The health status may be useful for academic planning and guidance for the student. Egolf<sup>7</sup> points out this value, particularly where it applies to physically-handicapped students on campus.

The examination should be designed to assess growth and development, as well as to anticipate adjustment problems.<sup>8</sup> Obviously, these concepts are most valid or meaningful when they are based on serial determinations and observations. Therefore, these periodic health evaluations are best performed by a physician who has had some previous knowledge of the individual student and his medical care problems, as well as some previous measurements and assessments on his record.

This observation leads one to conclude that the family or personal physician, often the pediatrician, is best suited to perform the pre-entrance college health examination. It should be viewed, not as an isolated segment of medical care, but rather as part of the continuum of medical care for that individual.

Meyerstein,<sup>9</sup> in his exhaustive review of the subject of periodic school health examinations, points out that the physician who regularly cared for the student, rather than a strange new physician, is in the best position to evaluate health status. He goes on to stress that detection of more health defects by school physicians rather than the personal physician probably relates to a different system of recording.

The demonstration that 4.3% of the entering students had significant health defects and required special attention would seem to point out that the system of having private physicians perform the examination and complete the form would have some real merit. It is quite important to know how much insulin or Dilantin has been prescribed for the individual, or whether a student with a kidney disorders has been advised to restrict his activity by the physician. This contact with the original managing physician is oftentimes quite valuable, as for example, in the student who is having seizures and needs close monitoring by the managing physician. At the University of Hawaii, a woman student turned up in the Health Center requesting an examination for acceptance

for classroom teaching; her health form indicated that she was under the management of a physician in this city for systemic lupus erythematosus. She was thus rightfully referred back to him for this decision.

It is unfortunate that the concept of periodic health examinations for young adults has fallen into such great disrepute, among providers as well as consumers. Proposals for improving health care involve concepts of early detection and preventive care. These promises for better health care remain empty as long as the periodic health examination proposals neglect to deal with the basic problems of what conditions and defects to look for.

In the adolescent and young adult, emotional and behavioral disorders must be searched for far more diligently. Obesity and acne, which relate to the sensitive area of personal self esteem and self image, must be considered in this age group. Problems of human sexuality and contraception, as well as drug dependency behavior, must be opened up for discussion. Detection of areas of basic health misunderstanding and confusion, as well as a discussion of proper nutrition, aspects of normal growth and development, health insurance, and accident prevention should also take place. This health examination procedure can therefore become a meaningful educational contact between the physician or nurse and patient. One must, therefore, put the periodic health examination into its proper perspective, seeing that it forms a part of ongoing health maintenance activities.

In entering college, the student is generally entering a new phase of life, and, as such, should be prepared to cope with the newly gained independent, self-resourceful style of living.

Based upon personal observations, the authors would point out that the majority of students at this age do not see physicians regularly and, in fact, most have not been to see a physician for medical care except for episodic serious illnesses or injuries after the age of 10 to 12 years.

This pre-entrance college health examination represents, therefore, a most important episode for the student. This contact between the health provider and consumer provides an excellent opportunity to evaluate the health of the individual, and also to share the results, as well as to make recommendations for proper health habits and precautions in order to maintain good health.

Performed properly, this is a challenging procedure which serves as the basic foundation for good health care. Using the health information gained during this process, the student can better cope with his personal health needs independently.



Schwarz<sup>10</sup> has indicated that UCLA merely requires a student-completed medical history form and has eliminated a physician or nurse role in this procedure. Even though this may be economically cheaper, the benefits of this system have not been adequately documented to justify this limited procedure.

The charges for the UH health appraisal in the offices of practitioners in the State of Hawaii show some variability, but are, on the whole in line with medical care costs in Honolulu, conforming with the schedule of fees as set up by the Relative Value Studies of the Hawaii Medical Association of 1970. In the average physician's office, the student would be charged \$20.00 if he were a new patient to the office, and \$15.00 if he were an established patient. Stories of exorbitant fees being charged for this examination may be true, but are isolated incidents. The overwhelming evidence is that most physicians in our State perform a valuable, meaningful service for the patient and charge nominally for the procedure.

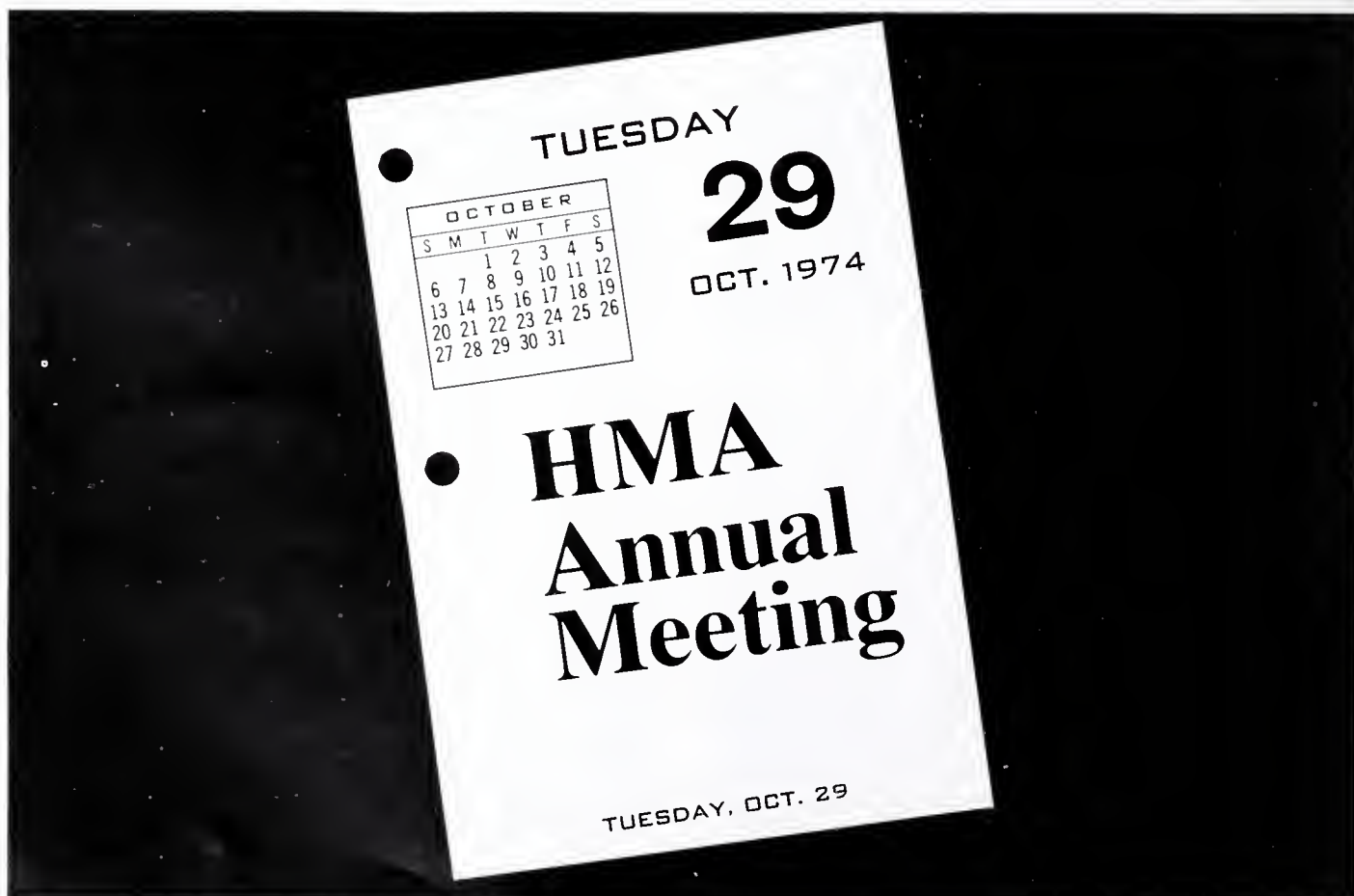
## Summary

The pre-entrance college physical examination should be performed as a part of an ongoing periodic health maintenance program. Often it signals the initiation of a self health care program for the student and, as such, represents a critical opportunity to the physician to share a meaningful educational experience with the student. Although new, previously undiagnosed physical defects are rarely detected, the useful function is served of getting these individuals to relate to their personal health needs as they plan for their future. The transmittal of this information to the college health service can be of great value to the new health providers, as well, in setting up a health care pattern, recognizing the health needs of the affected individual.

Performed in the offices of private practitioners in the State of Hawaii, the appraisal is reasonably well performed and charges are quite equitable for this health care activity.

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**HAWAII MEDICAL ASSOCIATION**

**118th ANNUAL MEETING—October 28-November 1, 1974**

**Ilikai Hotel — Pacific Ballroom — Honolulu, Hawaii**

**THEME: "CLINICAL PHARMACOLOGY AND THERAPEUTICS"**

**PRELIMINARY SCIENTIFIC PROGRAM**

**MONDAY, OCTOBER 28, 1974**

- 1:00 p.m. Registration
- 1:30 p.m. House of Delegates Meeting

**TUESDAY, OCTOBER 29, 1974**

**MORNING**

- 6:30 a.m. Registration—Lobby
- 7:15 a.m. CALL TO ORDER—Thomas P. Frissell, M.D., HMA President
- WELCOMING ADDRESS—Arnold W. Siemsen, M.D., Chairman, Convention Committee
- 7:30 a.m. "Hypertension—A National Health Crisis"  
Kenneth L. Melmon, M.D.
- 8:00 a.m. Discussion
- 8:15 a.m. Intermission to View Exhibits
- SESSION A:
- 8:35 a.m. "Treatment of Urinary Tract Infections"  
Anthony W. Chow, M.D.
- 9:05 a.m. "The Clinical Pharmacology of Antihypertensive Drugs"  
Kenneth L. Melmon, M.D.
- 9:35 a.m. "Mechanisms and Use of the Antiarrhythmic Drugs"  
Dean T. Mason, M.D.
- 10:05 a.m. Intermission to View Exhibits
- 10:25 a.m. "Management of Acute Hypersensitivity Syndromes"  
Joseph Bianchine, Ph.D., M.D.
- 10:55 a.m. "Supportive Psychotherapy in Medical Practice"  
Allen J. Enelow, M.D.
- 11:25 a.m. "Sexual Responses Through the Media of Film"  
Eugene C. Divita, M.D.
- 12:00 Noon Adjourn

**SESSION B:**

- 8:35 a.m. MEDLINE Orientation: "Instant Bibliography"  
Frances Granier, Hawaii Medical Library  
(continuous demonstration)

**SESSION C:**

- 8:35 a.m. "Recent Advances in the Management of Acute Leukemia"  
Emil J. Freireich, M.D.
- 9:05 a.m. "The Alternate-day Corticosteroid Regimen: Uses and Abuses"  
Lester F. Soyka, M.D.
- 9:35 a.m. "Opportunistic Pulmonary Infections: Diagnosis and Management"  
Irwin Ziment, M.D.
- EVENING** FIRESIDE CHAT CONFERENCE—(Sponsored by the Hawaii Thoracic Society, Medical Section of the Hawaii Lung Association)
- 8:00 p.m. KEYNOTE SPEECH: "Uses and Abuses of Antibiotics"  
Irwin Ziment, M.D.



8:30 p.m. **ROUND TABLE DISCUSSIONS:**

Table I—"Keeping the Chronic Lunger Out of Trouble"

Irwin Ziment, M.D.

Table II—"Management of Inoperable Bronchiogenic Carcinoma"

Joseph Bianchine, Ph.D., M.D.

Table III—"Opportunistic Pulmonary Infections"

Anthony W. Chow, M.D.

10:00 p.m. Adjourn

**WEDNESDAY, OCTOBER 30, 1974**

**MORNING**

7:00 a.m. Registration

7:30 a.m. "Drug Induced Diseases—An Overview"

Robert H. Moser, M.D.

8:00 a.m. Discussion

8:15 a.m. Intermission to View Exhibits

**SESSION A:**

8:35 a.m. *Panel Discussion:* "Drug Interactions"

Robert H. Moser, M.D., Moderator

Paul A. Walter, M.D.

Kenneth L. Melmon, M.D.

Lester F. Soyka, M.D.

Joseph Bianchine, Ph.D., M.D.

10:05 a.m. Intermission to View Exhibits

10:25 a.m. Continue *Panel Discussion:* "Drug Interactions"

12:00 Noon Adjourn

**SESSION B:**

8:35 a.m. "Use and Misuse of the Psychotropic Agents"

Allen J. Enelow, M.D.

9:05 a.m. Discussion

9:20 a.m. "Human Sexuality"

Eugene C. Divita, M.D.

9:50 a.m. Discussion

**SESSION C:**

8:35 a.m. "The Immunological Basis of Cancer Prognosis and Therapy"

Emil J. Freireich, M.D.

9:05 a.m. "The Treatment of Bacteriodes Fragilis Infections"

Anthony W. Chow, M.D.

9:35 a.m. "Management of Cardiac Pump Failure in Acute Myocardial Infarction"

Dean T. Mason, M.D.

10:05 a.m. Intermission to View Exhibits

10:25 a.m. "Psychiatric Aspects of Respiratory Disease"

Irwin Ziment, M.D.

10:55 a.m. "Treatment of Fever"

Thomas M. Cashman, M.D.

11:25 a.m. "Improving Compliance With Therapeutic Regimens"

Vincent S. Aoki, M.D.

12:00 Noon Adjourn

**AFTERNOON**

1:00 p.m. House of Delegates Meeting

**THURSDAY, OCTOBER 31, 1974**

**MORNING**

7:00 a.m. Registration

7:30 a.m. "Some Consequences and Cures to the Inappropriate Prescription Habits of Physicians"

Kenneth L. Melmon, M.D.

8:00 a.m. Discussion

8:15 a.m. Intermission to View Exhibits

**SESSION A:**

8:35 a.m. *Panel Discussion:* "Current Regulations and Activities of Drug Enforcement Agencies"

John Y. Y. Lee

Jerome G. Estavillo

Thomas A. Okimoto

10:05 a.m. Intermission to View Exhibits  
10:25 a.m. "The Food and Drug Administration and the Practicing Physician"  
Merle L. Gibson, M.D.  
11:10 a.m. Questions and Answers  
12:00 Noon Adjourn

SESSION B:

8:35 a.m. "The Management of Acute Grief"  
Allen J. Enelow, M.D.  
9:05 a.m. Discussion  
9:20 a.m. "Evaluation of Sexual Dysfunction"  
Eugene C. Divita, M.D.  
9:50 a.m. Discussion

SESSION C:

8:35 a.m. "Chemo-immunotherapy for Malignant Disease"  
Emil J. Freireich, M.D.  
9:05 a.m. "Basic Concepts of Drug Metabolism"  
Lester F. Soyka, M.D.  
9:35 a.m. "Current Concepts in the Treatment of Angina Pectoris"  
Dean T. Mason, M.D.  
10:05 a.m. Intermission to View Exhibits  
10:25 a.m. "The Treatment of Gonorrhea"  
Anthony W. Chow, M.D.  
10:55 a.m. "Management of Parkinsonism"  
Joseph Bianchine, Ph.D., M.D.  
11:25 a.m. "Therapy of Hyperlipidemias"  
Paul A. Walter, M.D.  
12:00 Noon Adjourn  
12:00 Noon RECEPTION AND LUNCHEON—Imperial Room, Ilikai Hotel  
(Installation of Officers, Presentation of Awards)

FRIDAY, NOVEMBER 1, 1974

MORNING

7:30 a.m. "Generic Equivalents and Bioavailability. Are all Drug Products the Same?"  
Lester F. Soyka, M.D.  
8:00 a.m. Discussion  
8:15 a.m. Intermission to View Exhibits

SESSION A:

8:35 a.m. "Use of New Prognostic Factors for Predicting Response and Survival in Malignant Disease"  
Emil J. Freireich, M.D.  
9:05 a.m. "Management of the Poisoned Patient"  
Joseph Bianchine, Ph.D., M.D.  
9:35 a.m. "Oxygen Therapy: Who Needs it, and How to Give It"  
Irwin Ziment, M.D.  
10:05 a.m. Intermission to View Exhibits  
10:25 a.m. "New Approaches to Quantitative Therapeutic Decisions"  
Kenneth L. Melmon, M.D.  
10:55 a.m. "Recent Advances in the Clinical Application of the Digitalis Glycosides"  
Dean T. Mason, M.D.  
11:25 a.m. "The Treatment of Gram-Negative Bacteremia"  
Anthony W. Chow, M.D.  
12:00 Noon Adjourn

SESSION B:

8:35 a.m. "Principles in Management of Chronic Alcoholics"  
Allen J. Enelow, M.D.  
9:05 a.m. Discussion  
9:20 a.m. "The Treatment of Sexual Dysfunctions"  
Eugene C. Divita, M.D.  
9:50 a.m. Discussion

SESSION C:

(Presented by the Hawaii Heart Association, Stroke Committee)  
8:35 a.m. "Acute Stroke Rehabilitation Program"  
Angelo Scavarda, M.D.  
9:35 a.m. "Speech and Aphasia Screening Program"  
Thomas A. Jerke, M.S., C.C.C.  
9:50 a.m. "Occupational Therapy in Stroke"  
Helen Hamasu, OTR



10:05 a.m. Intermission to View Exhibits  
 10:25 a.m. "Acute Medical Treatment in Stroke"  
                   Jordon S. Popper, M.D.  
 10:55 a.m. "Vascular Surgery in Stroke"  
                   Thomas J. Whelan, M.D.  
 11:25 a.m. Discussion  
 12:00 Noon Adjourn

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## GUEST FACULTY

**Vincent S. Aoki, M.D.**  
 Associate Professor of Pharmacology  
 School of Medicine  
 University of Hawaii

**Joseph R. Bianchine, Ph.D., M.D.**  
 Professor and Chairman  
 Dept. Pharmacology & Therapeutics  
 Texas Tech University School of  
 Medicine  
 Lubbock, Texas

**Thomas M. Cashman, M.D.**  
 Assistant Professor of Pharmacology  
 University of Hawaii School of  
 Medicine  
 Pediatrician

**Anthony W. Chow, M.D.**  
 Assistant Professor of Medicine, UCLA  
 Infectious Diseases Laboratory  
 Harbor General Hospital  
 Torrance, California

**Eugene C. Divita, M.D.**  
 Post Oak Psychiatry Associates  
 Houston, Texas

**Allen J. Enelow, M.D.**  
 Chairman, Dept. of Psychological  
 and Social Medicine  
 Presbyterian Hospital of Pacific  
 Medical Center  
 San Francisco, California

**Jerome G. Estavillo**  
 Supervisor, Investigation & Narcotics  
 Control Section  
 Food and Drug Branch  
 Hawaii State Department of Health

**Emil J. Freireich, M.D.**  
 Professor of Medicine  
 Head, Dept. of Developmental  
 Therapeutics  
 University of Texas Cancer Center  
 Houston, Texas

**Merle L. Gibson, M.D.**  
 Director, Div. of Anti-Infective Drugs  
 Food and Drug Administration  
 PHS, DHEW  
 Rockville, Maryland

**Helen Hamasu, B.S.**  
 Registered Occupational Therapist  
 Department of Physical Medicine  
 St. Francis Hospital  
 Honolulu, Hawaii

**Thomas A. Jerke, M.S., C.C.C.**  
 Chief, Speech Pathology Service  
 Tripler Army Medical Center

**John Y. Y. Lee**  
 Special Agent in Charge  
 Drug Enforcement Administration  
 U.S. Department of Justice  
 Honolulu, Hawaii

**Dean T. Mason, M.D.**  
 Professor of Medicine  
 Professor of Physiology  
 Chief, Cardiovascular Medicine  
 University of California, Davis

**Kenneth L. Melmon, M.D.**  
 Chief, Div. of Clinical Pharmacology  
 School of Medicine  
 University of California,  
 San Francisco

**Robert H. Moser, M.D.**  
 Editor, The Journal of the American  
 Medical Association  
 Director, Div. of Scientific Publications  
 Chicago, Illinois

**Thomas A. Okimoto, Pharm.D.**  
 President  
 Hawaii Pharmaceutical Association

**Jordan S. Popper, M.D.**  
 Neurologist  
 Honolulu, Hawaii

**Angelo Scavarda, M.D.**  
 Chief, Physical Medicine Service  
 Tripler Army Medical Center

**Lester F. Soyka, M.D.**  
 Professor of Pharmacology and Pediatrics  
 Co-Director of Clinical Pharmacology  
 University of Vermont College of  
 Medicine  
 Burlington, Vermont

**Paul A. Walter, M.D.**  
 Vice-President and Medical Director  
 Mead Johnson Research Center  
 Evansville, Indiana

**Thomas J. Whelan, M.D.**  
 Professor and Vice-Chairman  
 Department of Surgery  
 School of Medicine  
 University of Hawaii

**Irwin Ziment, M.D.**  
 Assistant Professor of Medicine  
 UCLA School of Medicine  
 Director of Respiratory Therapy  
 Harbor General Hospital  
 Torrance, California

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## HOUSE OF DELEGATES MEETING

Pacific Ballroom, Ilikai Hotel  
 Monday, October 28, 1:30 p.m.  
 Wednesday, October 30, 1:00 p.m.

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## ANNUAL SPORTS AND SOCIAL EVENTS

Tennis Tournament—Starting September 14—Bal Raj Mehta, Chairman  
 Skin Diving—Molokai—September 15—Theodore Tseu, Chairman  
 Bow & Arrow Hunting—Big Island—October 25-26—William Davis, Chairman  
 Deep Sea Fishing—Honolulu—October 27—Andrew Morgan, Chairman  
 Luncheon—Imperial Room, Ilikai—October 31—Arnold Siemsen, Chairman  
 Golf Tournament—Mid-Pacific Country Club—November 1—William Dang, Chairman  
 Sportsmen's Night Party—Mid-Pacific Country Club—November 1—Andrew Morgan, Chairman




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## Editorials

### We Blew It!

Harry L. Arnold, Jr., M.D.; Editor  
c/o Hawaii Medical Journal  
510 S. Beretania Street  
Honolulu, Hawaii

Dear Dr. Arnold:

In response to your editorial concerning the Aloha United Fund which appeared in the June edition of the Hawaii Medical Journal.

Designations to a United Fund agency are not

additional income to the benefitting agency. They are subtracted from the total allocation. Only should designations exceed an agency's total—a remote possibility—would a portion of those designations become additional income.

Sincerely,

(MRS.) SUE-MAR DAWSON  
Executive Director

The National Foundation — March of Dimes,  
Honolulu Chapter

### ...But—Please Designate Your Gift Anyway!

Designation of a gift to the Aloha United Way is recognized as a basic right of the individual contributor. In last Fall's campaign \$568,209 or 10.3% of the \$5,528,287 raised was designated. The AUW looks at designated contributions as the "first dollar" obligated to an agency. It is the responsibility of the 130-member Budget Committee to review each agency's financial requirements to insure adequate funding for needed programs.

We believe this rather thorough budget process provides financial and program accountability to the contributing public. The giver who designates all or a part of his contribution may be assured that his money is used for that purpose. The AUW budget process tries to remove any element

of a "beauty contest" when appropriating contributed dollars; thus, agencies less well known or those with lesser emotional impact can still be funded commensurate with their service ability.

Finally, it should be noted that after our last campaign two agencies—Joint Services Recreation Assn. for Handicapped Children and Eye of the Pacific Guide Dogs—were designated more money than the Budget Committee had recommended. These agencies were allocated the full amounts of their designations.

BRUCE F. WOLGEMUTH  
Executive Director,  
Aloha United Way

### Continuing Medical Education Accreditation Approved

The Hawaii Medical Association is pleased to announce that its application to become the accrediting body for local programs of Continuing Medical Education (CME) of hospitals, specialty societies, and other health agencies was approved by the AMA Council on Medical Education on June 23, 1974.

This means that these institutions may now receive official accreditation through the HMA of those CME programs and activities which meet the AMA guidelines.

Attendance at such accredited programs may be applied to the Category 1 section of the AMA Physician's Recognition Award. The Physician's Recognition Award requires 150 hours' total credit obtained over a three-year period. Sixty hours of Category 1 credit, obtained through attendance at formally accredited CME activities, are *required*, and all 150 hours may be obtained in this category if the individual physician so desires.

Accreditation of these more formally organized

CME activities will enable Hawaii's physicians to obtain credits more conveniently than was previously possible. Physicians visiting Hawaii and attending such programs will also be able to apply these credits to their own CME record.

The bonuses to both staff and institutions in more structured and intercorrelated CME activi-

ties is expected to be considerable.

The HMA encourages all hospitals, specialty societies, and health-related institutions desiring accreditation of their CME activities to obtain the "Guidelines" and apply for formal accreditation.

## Waianae's Health Care Woes

The Waianae Coast Comprehensive Health Center (WCCHC) and the Waianae District Comprehensive Health & Hospital Board (WDHHB) have had their share of problems. The community recently has attempted to correct some organizational difficulties by re-structuring its board. Now, it has applied for continuation of funds to DHEW.

Many agencies involved in the review process of this project for the past four years now have another chance to comment on it. DHEW has sent a site visit team to Waianae to determine if the WCCHC should receive continued funding.

The project components, from what we can gather, remain essentially the same as they were four years ago, when organized medicine withdrew its support of the project. HMA objections are: (1) physicians in the WCCHC are employed by, and under the direction of, a lay board; and (2) the project has produced no evidence that it has the potential to become a self-supporting operation.

In discussions with CHP, the DHEW site visit team, and WCCHC representatives, multiple concerns by many agencies were voiced. But the

unfortunate situation is that the federal government does not appear to be interested in the components of the program, or whether or not it will work. They seem interested in only this question: "Is the WDCHHB in a better position now (July, 1974) to try to reach its original goals and objectives than it was in April, 1973," Of course it is—but so what?

The only vital consideration, at least in our minds, should be whether or not a project is feasible, viable, and based on sound principles—not on whether or not someone is, at any one point in time, in a better position to do some work.

Regardless of the intent of DHEW in sending its site visit team to Waianae, regardless of the discussions in CHP, regardless of the objections raised by the medical profession and the concern voiced by others, it is clear in our minds that the continued funding for the WCCHC for another year is a forgone conclusion, and that all of the activity and discussion is purely "shibai."

It appears that the federal government still has its obsession with spending money, and spend it they will. Any government concern with the delivery of quality health care remains undetected.



# Hawaii Medical Association

# HAWAII MEDICAL JOURNAL

## COUNCIL MEETING

Friday, April 5, 1974 — 5:30 P.M.

Mabel Smyth Lanai

### CALL TO ORDER

The meeting was called to order by President Thomas P. Frissell. Present were Drs. Winfred Y. Lee, William E. Iaconetti, R. Varian Sloan, Herbert Y. H. Chinn, George Goto, J. I. F. Reppun, Douglas B. Bell II, William W. L. Dang, Patrick J. Walsh, Sakae Uehara, Verne Adams, Peter Kim, William Moore, J. Mark B. Sowers, Calvin C. J. Sia, Rowlin Lichter, and Livingston Wong plus Mrs. Florence Goto.

### MINUTES

The minutes of the January 11, 1974, meeting were approved as circulated.

### SECRETARY'S REPORT

The report of the secretary was approved.

### FINANCE AND TREASURER'S REPORT

The February financial report was presented for review. The Finance Committee also recommended that the Council consider the reimbursement of actual expenses for those attending the AMA meeting in June.

#### ACTION:

It was voted to file the report of the Treasurer subject to audit. It was voted to reimburse expenses for the AMA meeting in June 1974 for actual expenses not to exceed \$75/day. This action is specifically for the June meeting; it was further recommended that the Finance Committee develop guidelines for travel expenses.

### WOMAN'S AUXILIARY REPORT

Mrs. Goto reported that the Auxiliary will hold their annual meeting in May as previously scheduled. It was reported that the AMA-ERF check for the School of Medicine, University of Hawaii, will be presented at the annual meeting.

### COMMITTEES AND COMMISSIONS REPORT

A. *Medical Education and Peer Review:* At the last Council meeting, the Council voted in favor of adoption of the AMA Physician's Recognition Award as the vehicle for continuing medical education documentation. Letters and brochures describing the program have been sent to all physicians. Plans for the development of a central office for CME and the finalization of documents necessary for HMA to become the accrediting organization for the program are underway. A grant has been submitted to RMP for assistance in developing the local accreditation program. Dr. Rutledge Howard from the AMA has been invited to meet with the Medical Education Committee on April 28th to further develop the program.

#### ACTION:

It was voted to approve the Medical Education Committee's plans for the RMP grant/Physician's Recognition Award.

B. *Medical Services:* The Workmen's Compensation Committee is continuing to meet with representatives from the Departments of Labor, Social Services, and insurance carriers in an effort to establish a rehabilitation plan. The Fee Survey Committee recommends the submission of a resolution to the AMA House of Dele-

gates calling for the Judicial Council to reappraise their position relative to the ethical nature of interest charges to be levied on delinquent accounts.

#### ACTION:

It was voted to approve the recommendation of the Fee Survey Committee.

C. *Internal Affairs:* The Convention Committee is preparing for the annual meeting to be held October 29–November 1, 1974. The committee recommends that the 1974 annual meeting registration fee for non-HMA members be \$100; this fee not to include any tickets for social or sports activities. The committee also recommends that the 1975 AMA Clinical Session also serve as HMA's scientific session that year and that the 1974 House of Delegates determine the date for the 1975 HMA House of Delegates meeting.

#### ACTION:

It was voted to approve the recommendations of the Convention Committee.

D. *Interprofessional and Public Relations:* The Public Affairs Committee plans a series of public forums on sexuality in cooperation with the Hawaii Newspaper Agency. A forum was held in Hawaii County and was highly successful. The committee is considering an opinion survey of HMA members. The TV-Radio Committee has been asked to provide topics and speakers for Dr. Ron Pion's radio show on KHVH Thursday evening. No TV programs have been aired since January due to lack of funds. The Health Facilities and Chronic Disease Committees evaluated a request from the Pacific Institute of Rehabilitation Medicine (PIRM) re the enlargement of their facilities. It was suggested that the committee should study the Maui County Medical Society report on aging.

E. *Legislation:* A listing of legislation relating to health was circulated for information. It appears that several of the measures supported by the HMA will be successfully passed by the Legislature.

F. *Public Health:* The Chronic Disease Committee recommends support of the proposal of Pacific Institution of Rehabilitation Medicine to expand in the area of present services and in specialized long-term rehabilitation as described at the March 5, 1974 meeting; this action does not necessarily endorse additional expansion of general long-term beds by PIRM or any other facility other than as described in the present proposal.

#### ACTION:

It was voted to accept the recommendation of the committee.

Communicable Disease Committee reviewed the catch-up immunization program in the Aiea area. A six-point program for release to the news media was recommended as follows:

The Hawaii Medical Association has met with the Department of Health to discuss the current "outbreak" of measles in the Aiea School area. Based on the Department of Health report, there has been an increased incidence of measles in this area the past week. In light of this report, it supports the Department of Health in active immunization program for school children for measles in Aiea.

The Hawaii Medical Association further recommends the following:

- (1) Live measles vaccine should be administered at or shortly after 12 months of age. It encourages such immunization prior to entrance to school.

*continued page 264*

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## Life in These Parts

A 13-year-old girl was recently rushed to Children's by her mother with suspected appendicitis. . . . **David Pang**, her physician, examined her and forthwith transferred her to Kapiolani Maternity where she nearly precipitated a full term. . . .

Dermatologist **Claude Caver** has a constant companion, an obedient old boxer (who looks fleabitten, but is actually suffering from a refractory canine dermatitis, according to Claude). "Queenie San" accompanies Claude to Peer Review meetings and sits in judgment. . . . "Queenie San" is bilingual, we discovered. When Claude commands in Japanese, "suwari nasai" Queenie sits. . . . When he orders, "machinasai" she waits. . . . Recently when the meeting became prolonged and Queenie San became restless, Claude had to resort to the unsophisticated plain English command, "Sit!"

A loyal, endearing, elderly Japanese woman was at her wits' end because of the constant attention required by her husband, who was becoming increasingly senile. Then she developed vague abdominal complaints, and loss of weight and appetite. . . . After GB and GI series, including gastroscopy, were negative, we started her on antidepressants. But then her Hb started to drop and we suggested a CEA test and a repeat GI workup in the hospital. She missed her next appointment. Later a fellow-physician told us how she had come to him and he had repeated a BE and found Ca of the cecum with local metastasis. With trepidation, we visited her on her 3rd postop day. Her wan face braved an apologetic smile despite the pain, the NG tube, the piggy back IV's and Foley. She whispered sincerely, "I'm sorry," and extended a frail hand. . . . We held it tightly, muttered, "I should be the one to apologize" and rushed out of her room, pell mell, lest she see our brimming grateful tears. . . .

**Francis Au** (who last year grew a 52 lb. winter melon) is a master organic gardener whose plants are in containers (saves yard space) and climb trellises 7 feet high made of 6 x 6 construction wire (saves air space as well). He recently revealed to us the amazing variety of ingredients which go into his compost mixture—cow manure, chicken manure, soy bean meal, fresh bone meal, sea weed meal (from Norway), meat meal (from Australia), blood meal and a dash of rock phosphate. Francis also offered the recipe for his insecticide: Mix, in a blender, red pepper juice, garlic juice, clive juice, sea weed powder, a dash of ocean water, and cactus juice cleanser. Francis says, "It's guaranteed to send the insects scurrying into your neighbor's yard."

**Sue Anzai**, our HMA office receptionist, glanced at **Wini Lee's** opulence and complained, "Dr. Lee is always telling me to lose weight." (Physician, heal thy self!)

## Visiting Physicians

Speaking at a Children's Hospital noon conference, **Hasim Ronaghy**, Prof. of Community Medicine in Iran (who took his internal medicine training at Johns Hopkins and speaks flawless English) told how his parents were worried. "They wrote to inquire if I was having any trouble with my English and I wrote back, 'No, I'm not, but the Americans are.'" Hasim was candid about the health problems of his country: "Infant mortality is 200 per 1000 live births. . . . It was 500 per 1000 when I was born, so I had a 50% chance of survival. . . .

Measles is doing fantastically well. . . . And why is nutrition a problem? We are reproducing more than we are producing. . . . The physician-population ratio is 1/70,000 in rural areas. . . . We graduate 600 physicians annually and  $\frac{2}{3}$  come to the U.S. and get married to blondes and stay. . . . I don't call this 'brain drain.' It's overtraining. . . . Let's face it, medicine is an urbanized profession: So much is taught that physicians cannot apply what they are taught if left in rural villages. . . ."

## Miscellany

Two Chinese nuns travelling in the U.S. spied the sign "Hot Dogs." Since dog is a delicacy and reserved only for the very rich in China, they were eager to partake of dog prepared American style. . . . They gingerly unwrapped their packages and one of them exclaimed, "Wow! Male dogs, at that!" (**Cora Au**)

Lady wanted an abortion. Doc: "How come you don't want your baby?" "Because I don't think its mine." (From **Aku's** program)

"State Attorney General Evello Younger said he will propose legislation enabling doctors to pronounce patients legally dead when the brain stops functioning, though the heart may still be beating. (And there, says **John Irish**, goes half the legislature)." (One of **Tom Frissell's** news clippings)

## Sportsmen

## Annual DDD Tournament

The MD's hosted this year's DDD Tournament held at Pearl Country Club and the trio in charge, **Catalino Cachero**, **Bill Dang**, and **Al Chun Hoon** decreed that there be no rain (which traditionally plagues the DDD golfers year after year). And there was none. . . .

When the scores were finally tallied at the Kanraku Tea House, low gross winner was our Ben Hogan disciple, **Nobu Nakasone**, with a 76 gross score. (He won a TV set). Low net winner was **Bill Dang** (83-19-64) (who also won a black and white TV set). High Gross was divided between **Ernesto Orinion** and **Ignacio Torres** (traditional tournament winners) and High Net went to **Jerry Jaffe** for an incredible 91. The physician winners in the various flights were as follows:

A Flight—**Don Marnyama** (net 67) 1st Place; **Al Paraz** (net 69); **Catalino Cachero** and **Al Chun Hoon** (net 70) and **John Ohtani** (net 73).

B Flights—Grouped at 2nd place with nets 72 were **Richard Mitsunaga**, **Randal Nishijima** and **H. Yokoyama**.

At 6th place with nets 73 were **Ed Emura** and **C. M. Lum**.

At 9th place with nets 75 were **Glenn Kokame** and **Ed Matsuoka**.

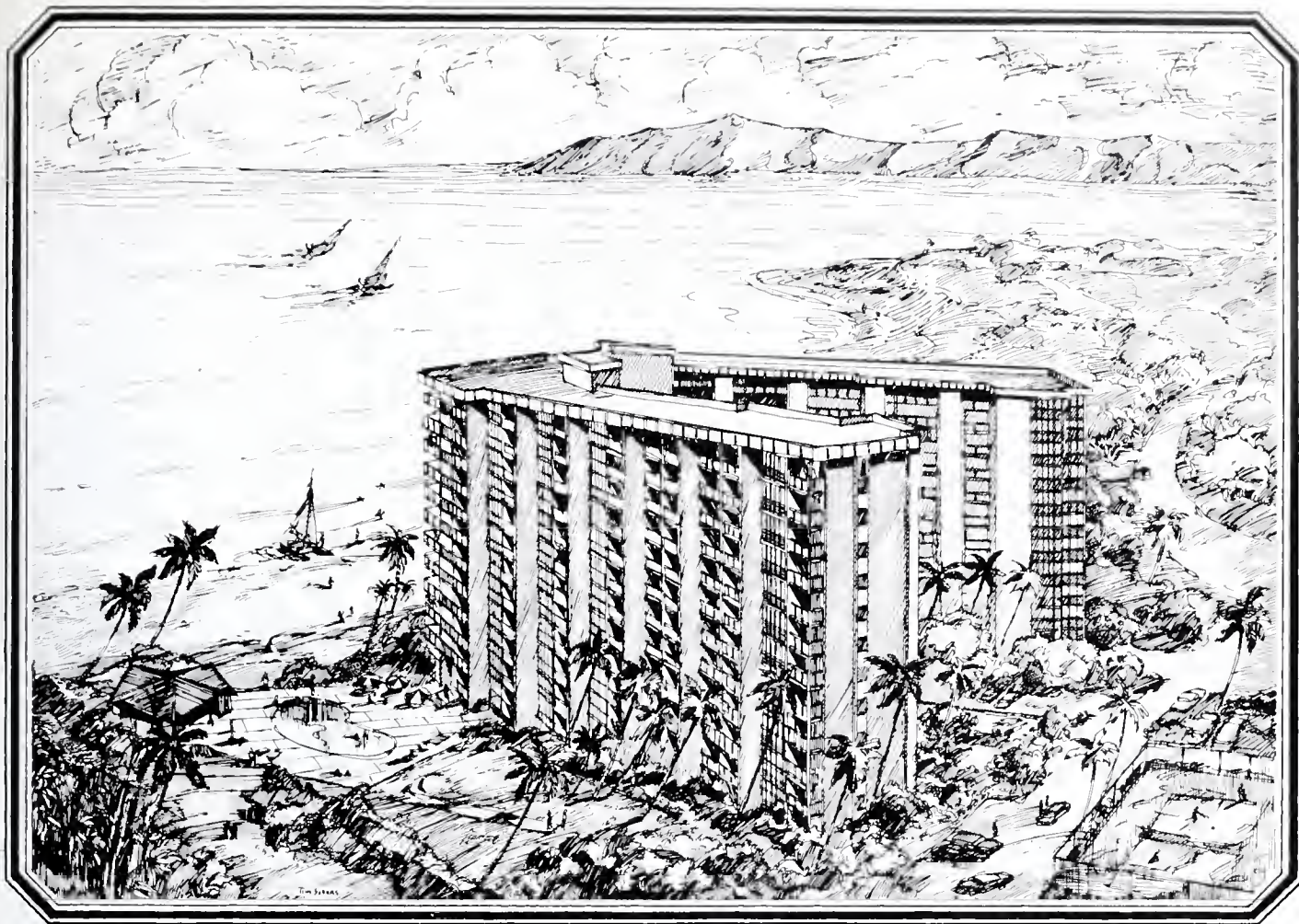
C Flight—1st place: **Maurice Nicholson** with net 65; 2nd place: **Wini Chang** with net 69; 7th place: **Henry Fong** with net 72.

Non-Handicappers (Peori System)—**Clifford Chang** 64; **Tom Richert** 68; **Jim Navin** 73; **Doug Bell Jr.** 74; **Milt Trager** 76.

With topless waitresses displaying their wares and plying us with drinks, MC **Catalino Cachero** flashed a Pepsdent smile and told the following jokes in his fascinating Filipino accent: "A prominent physician

*continued page 260*





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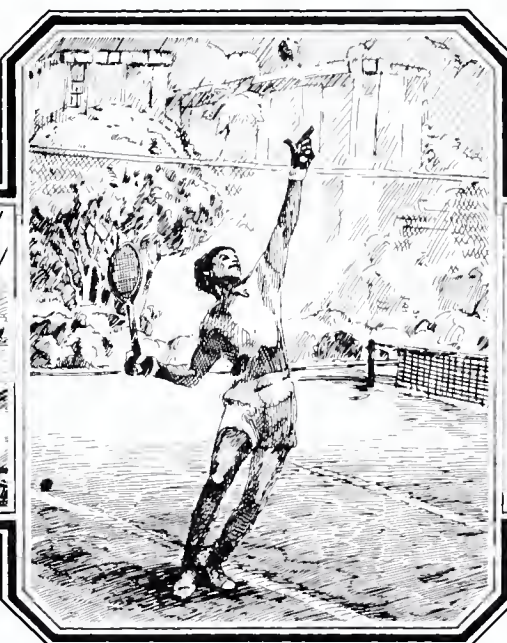
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returned from Taiwan, where he had learned the fine art of acupuncture. A beautiful lady came for treatment. He instructed her to disrobe and lie down. Then he started treatment. She asked incredulously, "Doctor, is this really acupuncture?"

"A bashful young lady saw a dentist. . . . Dentist to the apprehensive patient. "Lady, make up your mind so I can adjust the chair." (Ed: We didn't get it either)

"A young Filipino lady from PI went to the local druggist. 'I like some Kotex,' she ordered. The druggist produced the item. "No! no! no! . . . Just something for my finger nails." Druggist: "Oh, you meant Cutex."

The Team Trophy (a Tiki) was won by the MD's for the 3rd consecutive year. **Tom Thorson** commented, as he gazed at the three topless gals, "This tournament should be called the DDD VD Tournament. . . . I don't need to explain. . . ." Someone introduced one of them as "the sultry blonde with a million dollar figure and a genuine 'Huskie' from the Univ. of Washington." Of incidental interest was that our intrepid traditional winner, **Dick Lam** shot an unbelievable net 82 and another stalwart golfer **Wini Lee** (who has Foundation and PSRO matters on his mind) shot a gross 91. The only one happy with his gross 87 was **Garth Morimoto**, who loudly proclaimed that this was the best score he had shot in a long time. . . .

## Conference Notes

At a Queen's Friday morning conference on gonorrhea, **Richard Frankel**, our infectious diseases expert, advocated as the first choice of therapy, Procaine penicillin 4.8 million units with 1 gm of probenecid; as second choice, 3.5 gm of Ampicillin with probenecid; and as third choice, Trobicin.

We learned from **Ned Weibengar** that statistically Hawaii has the highest rate of increase in the age 16-30 group, but that Alaska was leading the pack. "The Kapahulu VD Clinic sees over 50 patients per afternoon and does routine oral, genital, and rectal cultures. . . . The Health Department screened over 80,000 women last year and discovered 400 asymptomatic cases. . . . The typical patient is a caucasian, 15-35 years old. . . . We have to admit VD is primarily a caucasian disease. . . . Even under the best circumstances, the culture is not perfect. . . . The gonococcus is a fastidious organism so susceptible to drying that there is only a 90% accuracy even with 3 negative cultures. . . . So it can never be contracted from toilet seats. . . . The physician's clinical judgment is vital, and he must repeat cultures even when he gets negative cultures. . . . The VD program is complicated by asymptomatic males, rather than females. . . ." As many as 20% of cases of GC arthritis in men are completely asymptomatic. . . .

## Miscellany

"Someone finally figured out why Washington is in such a mess these days. They now have air conditioning and the senators stay around during the hot summer season to cook up more trouble. . . ." (**Betty Anderson's** repertoire)

"As useful as an ashtray on a motorcycle. . . ." (Another of **Betty Anderson's** witticisms)

## The Wives' Corner

(Plagiarized from **Jani Gardner's** "365 More Ways to Say I Love You").

"Seduce him for a change. Greet him at the door in a sheer negligee and a come hither look. . . . He'll take over from there. . . ."

"Tell him he's the best 'live in' you've ever had."

"Try doing without the assistance of a bra . . . at least at home. Very sexy, this. . . ."

## Oncology Conference Dialogue

A 62-year-old diabetic woman had had nausea and vomiting for 2 weeks. An IVC showed a dilated common duct, and her liver enzymes were up. When explored, she was found to have adenocarcinoma of the ampulla of Vater, chronic pancreatitis, and a focal Ca in situ of her gallbladder. Pathologist **Grant Stemmerman** was ecstatic: "It is of epidemiological interest. . . . As you know, Ca of the gallbladder is increasing. . . . As a matter of fact, all tumors of the biliary tract are showing an increased incidence." He added gloomily as an afterthought, "The Ca of her gallbladder is only of academic interest since patients usually die before the second primary takes over. . . ." Moderator **Noboru Oishi** was curious: "What is the epidemiology of carcinoma of the pancreas?" Stemmy: "No one knows." Noboru: "Alcoholism?" Stemmy (who enjoys an evening cocktail) replied, "Isn't likely. . . . It may be related to diabetes."

A postop 59-year-old Japanese woman with "Duke's B" (Adenoca of the rectum) developed a backache after a fall. Spine films were negative, but a bone scan showed a T5 sclerosis. A needle biopsy of the spine was negative. Moderator **Oishi**: "The problem is whether the patient has metastatic Ca or not." Chemotherapist **Jack Kennan** suggested, "If the biopsy of the spine lesion is positive, I would treat with 5-FU." Noboru turned to radiologist **Don Ikeda**: "Is this type of metastasis usually lytic?" Don replied simply, "Yes." To stir up argument, Noboru asked innocently, "What is the morbidity of a dorsal spine biopsy, besides inadvertently. . . ." Our nuclear med man **Dick Warnick** changed the subject: "Our dilemma is a Duke's B and a positive bone scan. . . . I think the patient should be treated as if the Ca has spread . . ." and added philosophically, "This problem, we will face more and more." (ie, positive bone scans and negative spine films).

A 57-year-old Japanese woman with linitis plastica diagnosed and [shudder!] surgerized in May was now admitted with low back pain for 4 months and a 20-lb. weight loss. She lived on narcotics, and even MD-administered acupuncture had not relieved the pain. **Don Ikeda** reported, "The echogram was positive for node metastasis posteriorly." **Dick Warnick** reported that the bone scan was negative. Surgeon **Bob Oishi** suggested the possibility of pancreatic extension. . . . **Noboru Oishi** wondered if there was epidural tumor rather than osseous lesions per se. . . . Radiotherapist **Ed Quinlan** stated, "The pain may be due to retroperitoneal extension and we have to rule out epidural lesions before we can give cobalt. The bone scan should certainly be positive after 4 months of pain." Bob: "The treatment right now should be to rid her of pain. . . . She's been on narcotics so long. . . ." Chemotherapist **Jack Keenan**: "How about treating the primary lesion? I would try 5-FU first." Fellow chemotherapist **Quint Uy** differed, "You would want to treat the major symptoms. . . . It looks like radiation offers the best prospect. If it fails, then do a cordotomy." Noboru quizzed, "You would rather relieve the pain, than treat the primary lesion? If drug therapy, how soon should the pain be relieved?" Jack: "In 2 or 3 weeks." Ed Quinlan offered, "It may be worth trying x-ray therapy. We should know in 2 weeks or less. . . ." (Gloom!)

A 39-year-old Japanese man who lost 25 pounds and developed priapism while in Las Vegas 6 months ago was found to have chronic myelocytic leukemia. **George Suzuki** also alluded to possible etiological factors by describing how the patient had a house full of cats. **Quint Uy** added, "There is some relation of cat scratch fever to some of the lymphomas." **Grant Stemmerman** amplified: "There is a positive relation of feline lymphosarcoma and human lymphocytic leukemia . . . but no relation has been reported with granulocytic leukemia." Moderator **Noboru Oishi** asked, "What is the role of splenectomy and especially the therapeutic values of splenectomy vs splenic radiation? Various theories

*continued page 262*

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have been expounded." Quint: There are studies where the plasma collected after splenic radiation has been retransfused during remission of CML." Noboru: "What happened?" Quint: "Don't know." Hematologist **Mel Kaneshiro** asked, "How about skin windows in these patients?" Noboru: Haven't seen any reports on CML."

A 74-year-old retired taxi driver was a 1-pack-a-day smoker for 25 years. He developed a cough 1 month ago and loss of appetite. Chest x-rays revealed a left pleural effusion. Bronchoscopy and biopsy diagnosed an undifferentiated Ca. Radiologist **Don Ikeda** stated, "We've had a rash of Ca of the lungs recently." Surgeon **Vie Mori** concurred: "And they were all smokers." When radiotherapy instead of surgery was planned for the patient, Stemmy asked, "Will someone explain why radiotherapy instead of surgery?" Radiotherapist **Carl Boyer** elucidated, "Pulmonary effusion with the diagnosis undifferentiated Ca: has anyone seen anyone cured with this combination?" Nary a response came from all the internists, surgeons, chemotherapists, radiotherapists, or pathologists gathered. . . .

Physicians Speak Up

Back in April when fluoridation was an issue in Hilo, enbatted pediatrician **Ruth Oda** was pitted against a retired optometrist, a research entomologist, a health food store proprietor, and a Hilo housewife. When the reporter asked malignantly, "Do you know any organization that guarantees that no person will be harmed by drinking fluoridated water?" The Oda reply was candid: "They're crazy if they guarantee anything. . . . I think the proof of the pudding is that 95 million people are using fluoride and are not having serious side effects or disease. . . ." But fellow Hilo pediatrician **Ruth Matsuura** had her doubts over the fluoridation issue. Though she prescribes "routinely measured amounts of fluoride daily to children under age 12," she wrote that "she was not prepared to answer with any clear conviction whether the County should assume the responsibility to insure good dental health." She said, "the Big Island

is a small community and it does not need fluoridation to insure the children's dental health. . . ."

And also back in April before the acupuncture bill was signed by the Governor, **Harry Arnold, Jr.** commented on the statement, "Acupuncture is a new treatment in the West, and its application needs to be carefully supervised by physicians." He said "Nonsense! The argument is far simpler. Acupuncture is treatment of disease, and anyone who is planning to apply it needs to be trained to know whether a painful elbow is a symptom of systemic LE or a gonorrheal arthritis or rheumatoid arthritis or just what. A doctor can do this. An acupuncturist, not medically trained and qualified, cannot. . . . Licensing acupuncturists is inherently absurd, as absurd as licensing someone to administer antibiotics, or give people cortisone or any other kind of treatment, without being sure they understand the problems inherent in medical diagnosis. One can only hope, for the sake of the health of Honolulu's citizens, that the Governor will perceive this, and veto the bill." (But it was a voice lost in the wilderness).

At the first of three scheduled forums on human sexuality in April, **Robert Latta**, in adolescent medicine, ObGyn man **Ronald Pion** and psychiatrist **Leigh Sakamaki** all stressed that sex and sexuality were different things and parents must teach children the difference. Bob pointed out, "You don't have to wait for a pregnancy to occur: you don't have to wait to catch your kids doing something: you don't have to wait to be embarrassed to talk to your children about sex . . . and get high on it. . . . Sexual maturity implies many things. . . . It means learning how to care for someone else . . . learning how to live. . . . Leigh said, "When most of us see the word 'sex' we think about it in the physical sense. . . . But when we talk about human sexuality, we've got to broaden our horizons. . . . We've got to start thinking of sex not in a physical sense, but in terms of sensuality and sexuality. . . . A lot of kids can't talk about anything between their navel and their knees because all they know are four letter words—if they say anything, they'll get a slap in the face." Ron said that each day, families are provided many opportunities to initiate conversations about sex—from the pregnant woman down the block to the articles on rape or population control in the papers. . . .

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- (4) Gamma Globulin should be given to an exposed susceptible child and especially one known to have leukemia, disseminated malignancy, chronic disorders of the immune system and tuberculosis.
- (5) The Department of Health should actively implement the Rules and Regulations of the State of Hawaii that mandates immunization to measles, German measles, polio, DPT prior to entrance to school to avoid such future "crisis" and outbreaks.
- (6) The Department of Health should dispense some certificate of immunization given to the child at the time of the mass program.

**ACTION:**

It was voted to approve the recommended news release.

The School Health Committee recommends that the Council endorse a study of susceptibility to measles and poliomyelitis among children in the City and County of Honolulu and that the Department of Tropical Medicine provide the HMA with a copy of the study when completed.

**ACTION:**

It was voted to approve the recommendation of the committee.

The committee has met with coaches and principals regarding football safety and recommends that the AMA position regarding Medical Evaluation for Participation in Sports, contact and non-contact, be sent to all HMA members.

**ACTION:**

It was voted to accept the recommendation of the committee.

*G. HMA/HMSA/DSS Proposal:* Action on this proposal was postponed in 1973 and it is now recommended that action be deferred indefinitely.

**ACTION:**

A motion was made to refer the proposal for discussion at the next House of Delegates meeting. It was suggested that the other two parties be contacted regarding their interest in the project prior to any decision regarding the project. It was voted to refer this matter to the Executive Committee for clarification at the next Council meeting.

*H. Cancer Research Center:* Dr. Chinn reported on the CRC activities and recommended the Council correspond with the Governor and President of the University of Hawaii regarding their preference for the director of the Cancer Research Center.

**ACTION:**

It was voted that the HMA strongly recommend that the director of the Cancer Research Center be a Medical Doctor.

*I. Emergency Medical Services:* The Council reviewed a written report regarding EMS as well as various letters regarding funding for the continuation of the EMS program.

**ACTION:**

It was voted to allow the decision regarding the EMS grant be made by the HMA officers and president of the EMS Executive Committee.

*J. EMCRO:* A report on the Hawaii EMCRO has been received from Arthur D. Little and Company who asks

that the report be reviewed for accuracy and comments.

**ACTION:**

**Drs. Winfred Y. Lee, William E. Iaconetti, and J. I. F. Reppun were appointed to review the report and present their recommendations to the Council.**

*K. PSRO:* Dr. Lee reported the Foundation has been advised that the final area designation for Hawaii will also include the Trust Territory, Guam, and American Samoa. The American Association of Foundations for Medical Care has advised that there are planning grants available for those agencies interested in planning further for PSRO. The Foundation will submit a six-month grant request for a planning grant. Letters have been sent to all HMA and non-HMA members soliciting their membership in the Hawaii PSRO.

Maui County Medical Society submitted a resolution regarding PSRO for Council action as follows: "Be it resolved, that the Hawaii Medical Association be requested to go on record as opposing the PSRO law, while continuing through the Foundation to comply with the law until repealed or declared invalid and to develop more refined Peer Review procedures for use when deemed advisable or necessary."

**ACTION:**

**A motion was made to refer the resolution to the HMA House of Delegates. It was voted to amend the motion calling for an immediate vote of the Council. It was voted to approve the Resolution.**

*L. Health Services:* Action on the proposed amendments to Public Health Regulations relating to Clinical Laboratories has been deferred pending a request to the Attorney General regarding the jurisdiction of the Department of Health over clinical laboratories operated by M.D.s.

**NEW BUSINESS**

*Election of Trustees for Hawaii Foundation for Medical Care:* As requested by the Council, the Board of Trustees submitted nominees to serve on the HFMC Board for three-year terms beginning January 1, 1974.

**ACTION:**

**The report of the nominating committee was accepted and a motion was made to close nominations. Drs. George H. Mills, Rodney T. West, and DeWitt H. Smith were elected. (Dr. R. P. Wipperman/alternate for Dr. Smith.)**

*Letters:* Copies of letters regarding EMS were circulated for information. Letters to and from Hawaii's Congressional delegation and the Senate Finance Committee regarding the continuation of price controls on the health care industry were also circulated. A letter from the National Heart and Lung Advisory Council advised it did not approve the HMA research grant application for a hypertension study. A letter requesting changes in the Veteran's Administration medical fee schedule was circulated for review. Dr. Kleona Rigney from the Department of Health has asked HMA to issue a notice to all physicians suggesting that blood pressure reading be done routinely on every patient seen in the office, irregardless of the specialty practiced or the presenting complaint of the patient in an effort to locate "silent hypertensives." A notice will be published in the next HMA Newsletter. A resolution passed by the Senate (SR88) requesting the health professions and health providers to recommend legislation for continuing medical education and relicensure programs was referred to the Medical Education Committee. An invitation to submit health project proposals to Regional Medical Program was reviewed. It was voted to extend the congratulations of the HMA to Dr. Satoru Izutsu who has been appointed as Executive Director of RMP.

**ADJOURNMENT**

The meeting was adjourned at 11:30 P.M.

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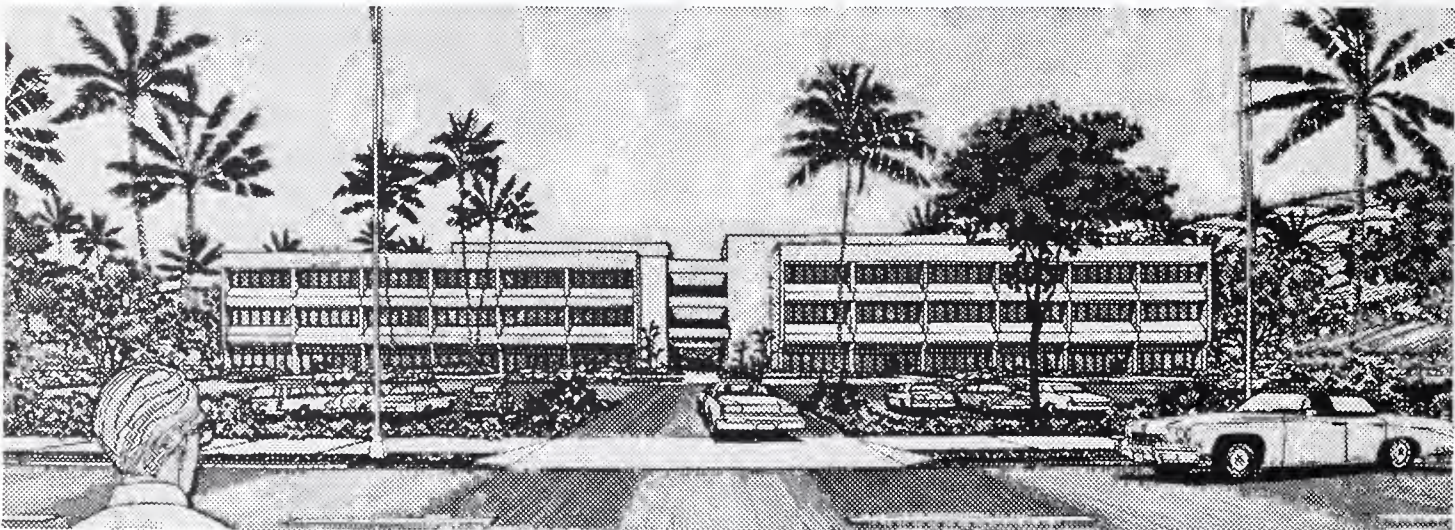


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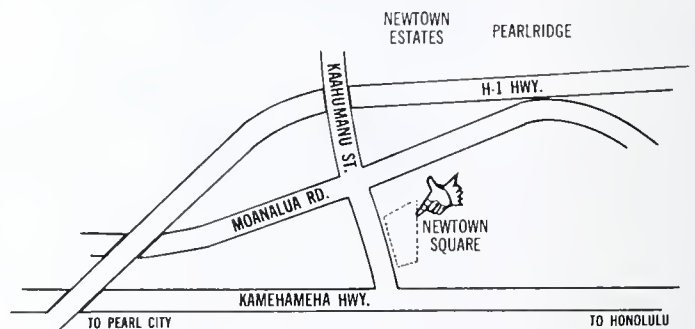
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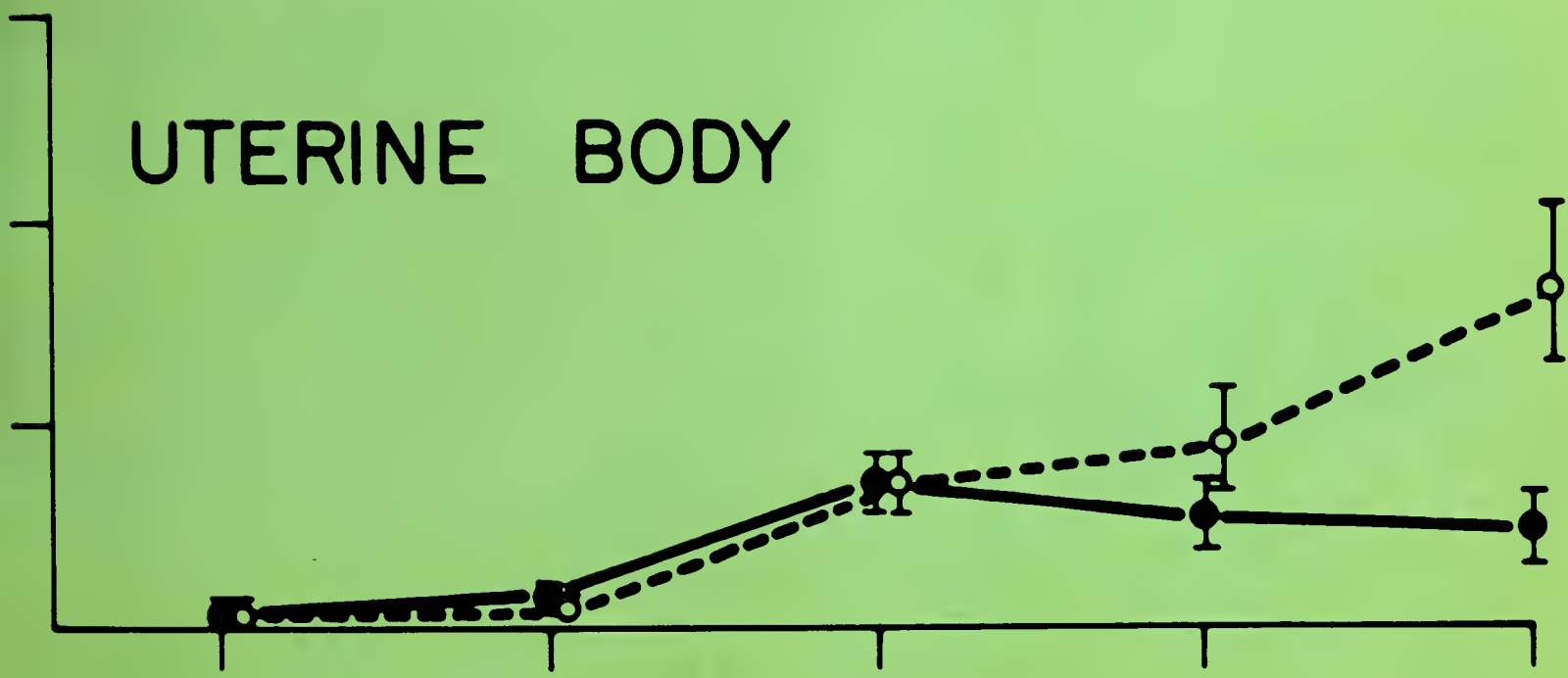
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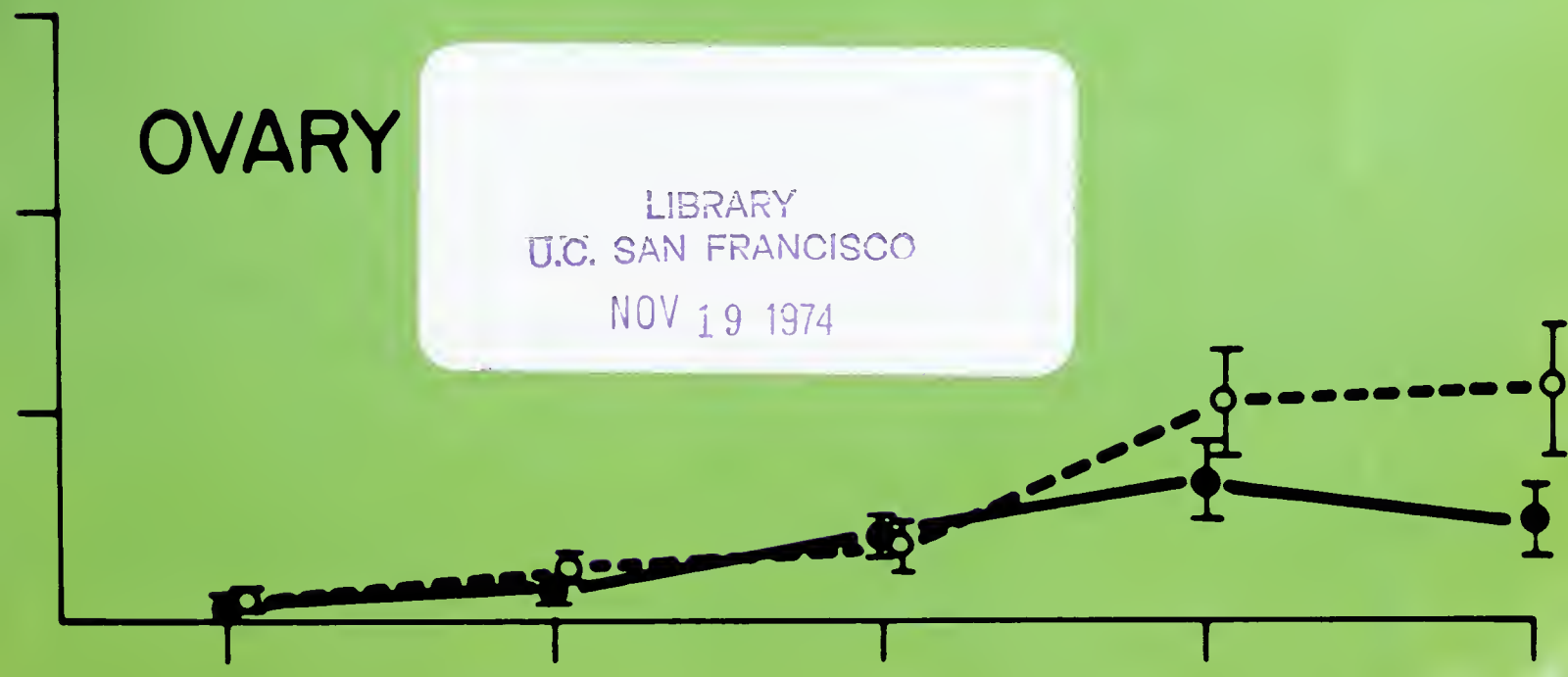
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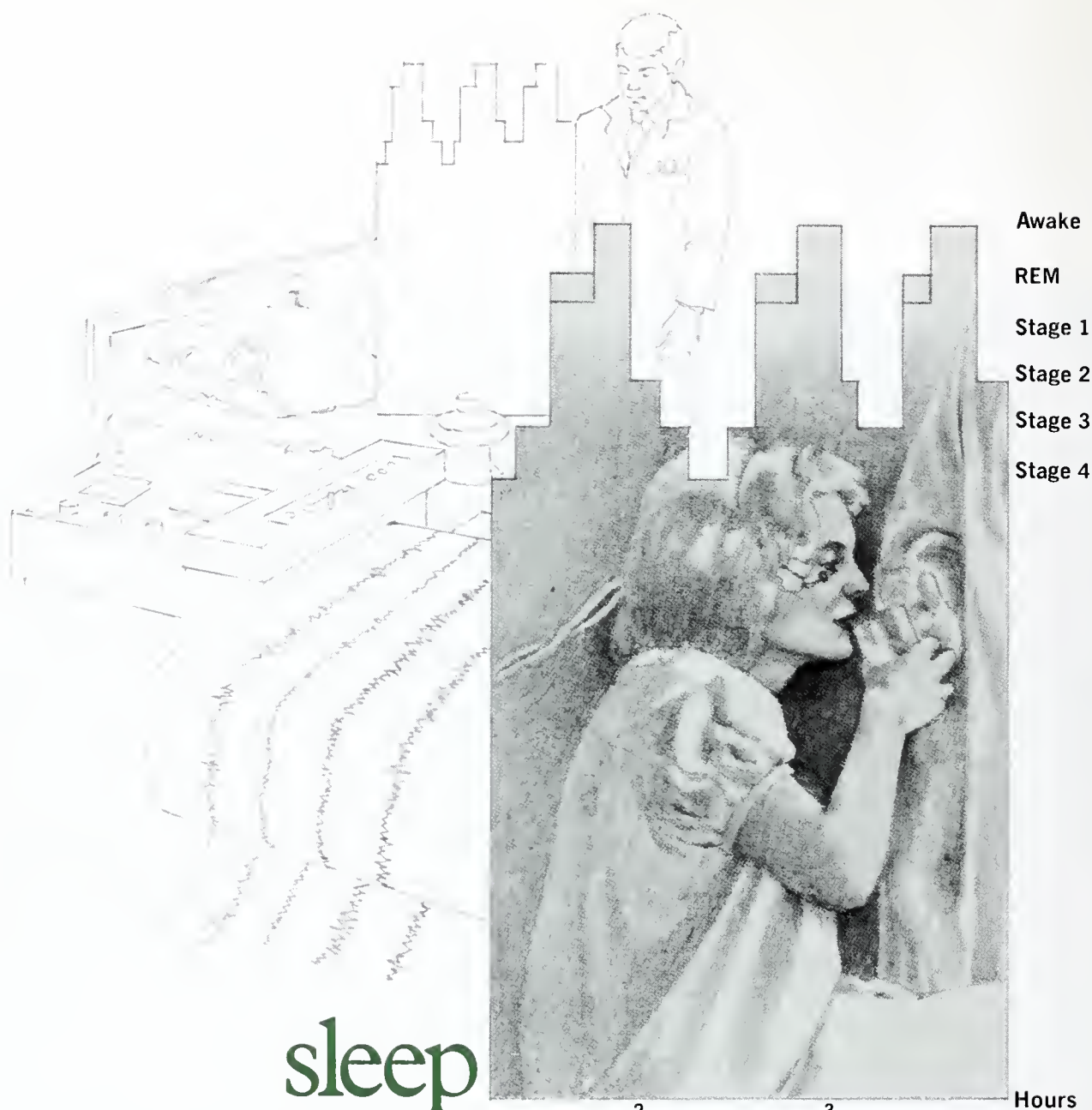


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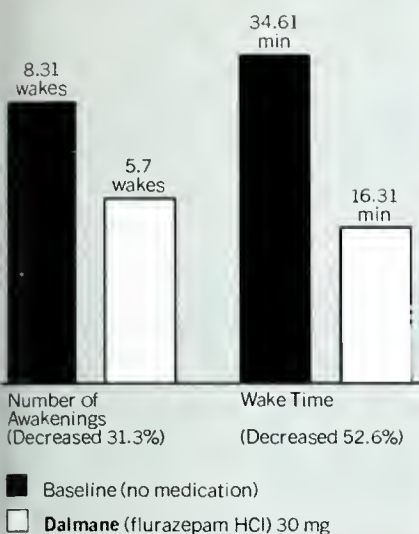


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**Indications:** Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

**Contraindications:** Known hypersensitivity to flurazepam HCl.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

**Precautions:** In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

**Adverse Reactions:** Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, e.g., excitement, stimulation and hyperactivity, have also been reported in rare instances.

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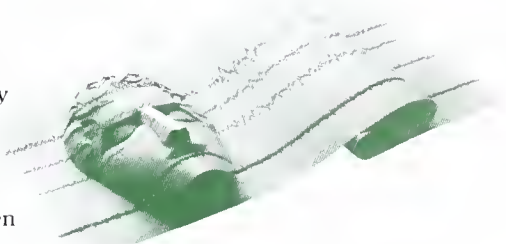
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5. Dement WC: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ



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# The Role of the Detail Man

"I may be prejudiced, but I am very much in favor of the detail men I meet. Most of them are knowledgeable about the drugs they promote and can be a great help in acquainting me with new medication."

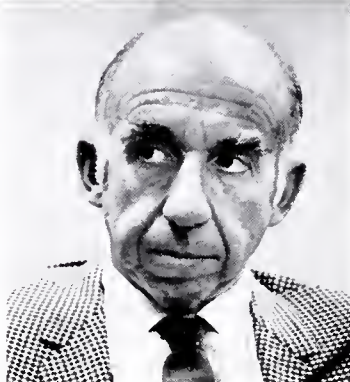
## Family Physician's Perception

I think that most general practitioners in this area feel as I do about the detail man. Over the years I have gotten to know most of the men who visit me regularly and they in turn have become aware of my particular interests and the nature of my practice. They, therefore, limit their discussion as much as possible to the areas of interest to me. Since I usually see the same representative again in future visits, it is in his best interest to supply me with the most honest, factual, as well as up-to-date information about his products.

Dr. Willard Gobbell  
Family Physician  
Encino, California



Dr. Jeremiah Stamler  
Chairman  
Department of Community  
Health and Preventive  
Medicine, and Dingman  
Professor of Cardiology  
Northwestern University  
Medical School



"In the total picture of dealing with health problems in this country, there is a potential for detail men to play a meaningful role."

## The Positive Influence

My contact with representatives and salesmen of the pharmaceutical industry is the type of contact that people in a medical center, research people, and academic people have and that's in all likelihood on a somewhat different level from that of the practicing physician.

Let me touch on how I personally perceive the role of the sales representative. These men reach large numbers of health professionals. Thus they could be — and at times actually are — disseminators of useful information. They could consistently serve a real educational function in their ability to discuss their products.

At present they do distribute printed material, brochures and pamphlets — some of it scientifically sound and therefore truly useful — as well as some excellent films produced by the pharmaceutical industry. When they function in this

Opinion  
&  
Dialogue

### **Is He a Source of Information?**

Yes, with certain reservations. The average sales representative is a great fund of information about the drug products he is responsible for. He is usually able to answer most questions fully and intelligently. He can also supply reprints of articles that contain a great deal of information. Here, too, I exercise some caution. I usually accept most of the statements and opinions that I find in the papers and studies which come from the larger teaching facilities. I go without saying that a physician should also rely on other sources for his information on pharmacology.

### **Training of Sales Representatives**

Ideally, a candidate for the position as a sales representative of a pharmaceutical company should be a graduate pharmacist who has a questioning mind. I don't think this is possible in every case, and so it becomes the responsibility

of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as updated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce—information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone

in the health care field, whether they be general practitioners, surgeons or salesmen.

### **Value of Sampling**

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

capacity they are indeed useful; particularly in the fact that they disseminate broadly based educational material and serve not just as "pushers" of their drugs.

### **The Other Side of the Coin**

Obviously, the pharmaceutical companies are not producing all this material as a labor of love—they are in the business of selling products for profit. In this regard the ambitious and improperly motivated sales representative can exert a negative influence on the practicing physician, both by presenting a one-sided picture of his product, and by encouraging the practitioner to depend too heavily on drugs for his total therapy. In these ways, the salesman has often distorted objective reality and undermined his potential role as an educator.

### **The Industry Responsibility**

Since the detail man must be an information resource as well as a representative of his particular pharmaceutical company, he should be carefully selected and

thoroughly trained. That training, perforce, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public—*i.e.*, the patients—will be.

### **Physician Responsibility**

The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that informa-

tion must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed ethical. I challenge the industry as a whole to live up to that word in its finest sense.

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## A Review of Some Tumors of Interest for Demographic Study in Hawaii\*

GEORGE G. RHOADS, M.D., M.P.H.,\*\* GARY A. GLOBER, M.D.,† and GRANT N. STEMMERMANN, M.D.†, Honolulu

● *Because of its multiracial character, Hawaii presents a unique opportunity to carry out demographic investigations of the etiology of certain common cancers. Tumors with substantially different incidence rates among the major ethnic groups in the Islands, or between a given immigrant group and its country of origin, are of particular interest for such studies. Among the cancer sites meeting these criteria, nasopharynx, stomach, prostate, large bowel, liver, female breast, uterine corpus, ovary, bladder, and thyroid are particularly prominent.*

With the development of cancer centers at various sites around the United States, it is to be hoped that such centers may become important national resources for cancer research.<sup>1</sup> Planning and development of such a center in Hawaii has begun. An acting core group representing multidisciplinary interests would implement the center program, their activity supervised by a policy task force representing various community groups.

Several factors make Hawaii a good place to look for clues to carcinogenic factors for some common cancers. Three sizable Asian groups, as well as persons of European and Hawaiian ancestry insure a diversity of ethnic groups available for study. On islands it is relatively easy to define populations and to follow cases. With the total population of Hawaii less than a million, only relatively common tumors are of sufficient number for study.

A differential in incidence rates of various ethnic groups aids in carrying out etiologic studies among them. The Asian people in Hawaii having immigrated in the last two or three generations, they are presumably genetically similar to populations in their respective countries of origin, but they have been exposed to strong Westernizing environmental influences and have developed different patterns of disease.

Advantage can be gained from this spontaneous socio-medical experiment by making two kinds of comparisons. First, tumor incidence rates in a given ethnic group in Hawaii can be compared to the respective rates in the country of origin. Clues to possible carcinogenic factors can be derived from known differences in the environments, and tested with case-control or cohort studies in the respective Hawaiian and indigenous Oriental populations. This approach has to date been most successfully employed in comparisons between people in Japan and Japanese Americans now living in Hawaii and California. Similar comparisons might be possible for Filipinos and Chinese.

A second type of comparison can be made among the several racial groups now living in Hawaii. They have different disease experiences, different environments arising from socio-economic and cultural factors, and different genetic and physiologic characteristics. Since the various groups are in geographic proximity, it is feasible to compare these parameters, minimizing methodologic differences in interviewing and laboratory techniques which threaten any cross-cultural study. Thus the following hypotheses may be constructed: environmental differences → physiologic differences → disease (tumor) differences.

\*This work was supported by contracts No. NIH-NCI-E-71-2208 and No. NIH-NCI-E-71-2170 from the National Cancer Institute.

\*\*Address reprint requests to Dr. Rhoads at the School of Public Health University of Hawaii, 96822.

†Japan-Hawaii Cancer Study, Kuakini Hospital, 347 Kuakini Street, Honolulu, Hawaii.

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Within this general background, some cancers which invite demographic study in Hawaii may be listed. They are tumors which occur frequently enough to study in the relatively small populations, and which: (1) have incidence substantially different from those in the three oriental countries of origin and in the United States; or (2) have substantially different incidence among ethnic groups in Hawaii.

This review is based on standard references giving international comparisons of cancer in-

cidence<sup>2,3</sup> and mortality.<sup>4</sup> Age-standardized summaries are presented for the mortality data in Table 1, and for the incidence data in Tables 2 and 3. The age-standardized rates may conceal important age variability which is evident in age-specific rates, and readers are urged to investigate points of interest to them in more detail in the original sources. Extensive reference is also made to the Hawaii Tumor Registry data,<sup>5</sup> and to Haenszel and Kurihara's previous work on mortality from cancer and other diseases among Japanese in the United States.<sup>6</sup>

TABLE 1. Age-adjusted death rates for selected cancers in Japan, China, and the United States (Caucasians) by sex (1964-65)\*

	MALE RATES PER 100,000				FEMALE RATES PER 100,000			
	U.S. Cauca- sians	Japan	China Taiwan Hong Kong		U.S. Cauca- sians	Japan	China Taiwan Hong Kong	
All sites	143.9	140.2	96.4	159.9	104.5	94.7	73.6	94.5
Esophagus	3.3	7.1	8.3	12.4	0.8	2.2	2.1	2.5
Stomach	9.4	68.6	22.5	21.3	4.7	35.3	12.8	12.3
Intestine (except rectum)	13.7	3.3	4.5	6.5	12.8	3.2	4.3	5.0
Rectum	5.4	4.7	2.4	4.7	3.4	3.5	2.4	2.9
Liver and biliary passages (includes secondaries)	4.5	14.6			4.2	9.2		
Lung bronchus and trachea	36.9	12.6	8.9	29.8	5.8	4.5	6.0	14.6
Breast					21.8	3.8	4.0	9.6
Uterus (All parts)					10.3	13.5	15.6	12.1
Ovary, fallopian tube and broad ligament					7.3	1.7		
Prostate	12.7	1.9	1.0	2.8				
Bladder and other urinary organs	5.0	2.2			1.7	1.0		
Thyroid	0.3	0.3			0.5	0.5		

\*Summarized from Segi M., Kurihara M., and Matsuyama T. *Cancer Mortality for Selected Sites in 24 Countries*, No. 5 (1964-1965) Department of Public Health, Tohoku University School of Medicine, Sendai, Japan. 1969, pp. 106, 118, 122, 126, 159.

TABLE 2.—Age-adjusted incidence rates per 100,000 for selected cancers in men in Japan, Singapore, Hawaii, and Mainland U.S.<sup>1</sup>

	U.S. MAINLAND			HAWAII (1960-64)				JAPAN		SINGAPORE
	Alameda County Whites (1960-64)	Connec- ticut (1963-65)	Hawaiian	Cauca- sian	Chi- nese	Fili- pino	Japa- nese	Miyagi (62-64)	Oka- yama (1966)	Chinese
Nasopharynx	0.5	0.5	7.8	1.1	10.4	3.1	0.9	0.1	0.4	16.1
Stomach	15.3	14.7	45.9	16.9	9.5	9.7	47.6	95.3	93.9	12.9
Colon	24.0	26.7	20.2	19.3	35.9	12.6	20.7	4.1	4.6	2.6
Rectum	15.5	16.3	6.8	12.6	15.8	12.4	11.7	4.8	6.7	5.0
Liver (primary)	2.4	—	15.2	4.3	7.3	6.1	6.7	1.3	0.3	8.6
Bronchus, Trachea <sup>3</sup>	47.8	44.0	70.3	43.8	27.2	17.1	26.3	15.6	15.3	12.9
Prostate	38.0	33.0	30.0	43.4	9.8	17.6	13.9	3.2	4.3	0.9
Bladder <sup>2</sup>	17.9	19.9	9.9	19.3	9.4	1.5	9.0	4.7	—	2.1
Thyroid	2.8	0.8	5.7	4.4	3.5	5.0	1.7	0.8	1.1	0.5

<sup>1</sup>These data for all locations except Singapore are taken from Doll R., Muir C., and Waterhouse J. *Cancer Incidence in Five Continents*, Volume II. Springer-Verlag: New York, 1970. The Singapore data are from Volume I (1966) of the same reference. Age standardized to World population.

<sup>2</sup>"Benign" Papilloma is included in Mainland US and excluded in Japan. It is not known how it was handled in Hawaii or Singapore.

<sup>3</sup>Includes primary and secondary.

TABLE 3.—Age-adjusted incidence rates per 100,000 for selected cancers in women in Japan, Singapore, Hawaii, and Mainland U.S.<sup>1</sup>

	U.S. MAINLAND			HAWAII (1960-64)				JAPAN	SINGAPORE	
	Alameda County Whites (1960-64)	Connecticut (1963-65)	Hawaiian	Caucasian	Chinese	Filipino	Japanese	Miyagi (62-64)	Oka-yama (1966)	Chinese
Nasopharynx	0.2	0.1	0.7	0.9	4.6	0.0	0.3	0.1	0.0	5.8
Stomach	7.4	6.8	24.5	8.8	14.2	1.5	26.9	44.7	45.7	3.7
Colon	22.9	26.7	12.1	27.5	23.5	14.8	15.3	4.0	4.6	2.2
Rectum	10.1	10.7	6.9	9.8	9.4	13.4	9.3	5.0	4.5	2.6
Liver	0.9	—	4.0	1.9	0.0	5.3	1.1	0.8	0.4	1.2
Bronchus, Trachea <sup>4</sup>	7.4	7.8	22.3	10.2	16.7	17.4	7.6	6.0	5.2	3.2
Breast	62.4	62.3	52.3	62.9	44.3	19.5	23.0	11.0	12.4	8.0
Cervix Uteri	17.9	10.3	26.4	15.4	19.6	22.0	14.6	20.6 <sup>2</sup>	22.4 <sup>2</sup>	21.4
Corpus Uteri	16.8	15.3	23.9	17.5	19.5	16.2	10.8	1.3	2.2	4.2
Ovary	12.6	11.3	16.6	14.8	13.1	4.8	9.4	1.9	2.8	3.2
Bladder <sup>3</sup>	5.6	5.9	5.0	5.9	0.0	4.0	2.1	1.6	—	0.5
Thyroid	7.4	3.0	10.1	5.4	20.7	14.3	6.5	2.0	3.3	1.0

<sup>1</sup>These data for all locations except Singapore are taken from Doll R., Muir C., and Waterhouse J. *Cancer Incidence in Five Continents*, Volume II. Springer-Verlag: New York, 1970. The Singapore data are from Volume I (1966) of the same reference. Age standardized to World population.

<sup>2</sup>Includes cases of carcinoma-in-situ.

<sup>3</sup>"Benign Papilloma is included in Mainland U.S. and excluded in Japan. It is not known how it was handled in Hawaii or Singapore.

<sup>4</sup>Includes primary and secondary.

<sup>5</sup>Includes primary and secondary.

Sites of Common Cancers

NASOPHARYNX

This cancer is frequent among Chinese, particularly those from South China. Frequency remains high in Chinese emigrants, but is lower among the children and grandchildren of emigrants in California,<sup>7</sup> Hawaii,<sup>8,9</sup> and Australia.<sup>10</sup> In Singapore, where the Chinese population is presumably less Westernized, the descendants of emigrants do not enjoy a lower risk.<sup>11</sup> Thus, the impact of Westernization appears to protect against this cancer. Careful case-control studies might be productive in implicating one or more aspects of the Chinese environment in the carcinogenesis of this tumor.

Demonstrated relationships between nasopharyngeal carcinoma and EB virus<sup>12</sup> could be studied among cases from various ethnic groups in the Islands. Such a study would have to extend over several years in order to accumulate sufficient cases of this relatively infrequent tumor.

STOMACH

Stomach cancer is more than five times as frequent among Japanese as among the U.S. white population. People of Japanese ancestry living in Hawaii have less stomach cancer than have people living in Japan, but substantially more than is found on the U.S. Mainland. Comparisons of the frequency of stomach cancer among racial groups in the Islands have been previously reviewed.<sup>13</sup> It is most common in Japanese and part-Hawaiians. High rates in the latter group have

been largely ignored by investigators interested in this tumor.

On a histologic basis, gastric cancer has been divided into two major types: intestinal and diffuse.<sup>14</sup> Evidence suggests that excess occurrence of the disease in Japan is predominantly of the intestinal type, which may be more apt to be induced by environmental carcinogens than is the diffuse type. There is also evidence that sex-tumor type interactions may result in better survival of women with diffuse cancer than of men. A larger percentage of women are without node development, and this may be a racial effect seen oftenest in Orientals.<sup>15</sup>

Among Japanese-Americans, rates among Issei have remained high, while the Nisei may have a slightly lower susceptibility.<sup>6</sup> This suggests that stomach cancer has an extremely long induction period, perhaps as long as 30 to 40 years. Recent case-control studies in this community by Haenszel et al, suggest that dried and salted fish and pickled vegetables have been more commonly eaten by persons with gastric cancer than by controls.<sup>16</sup> In an earlier Hawaii study, Quisenberry also reported excess consumption of pickled food items in persons with gastric cancer.<sup>13</sup> Stomach cancer is one of the focuses of the Japan-Hawaii Cancer Study, which is examining and following more than 7,500 older Japanese men on Oahu. Plans are to extend these observations to younger persons and to include women. Persons of European ancestry living in Hawaii and Japanese still living in Japan will also be studied. Assays of pepsinogen and gastrin levels are being carried out in subsamples of these



groups, in hope of uncovering physiologic differences which may underlie the high incidence of gastric carcinoma among the Japanese.

### PROSTATE

Age-adjusted death rates for carcinoma of the prostate are six times as high in the United States as they are in Japan. Low rates are also reported for Taiwan, Hong Kong, and the Philippines. Cancer registry data suggest that, in Hawaii, Caucasians (whites) are three times more likely to get prostatic cancer than are Japanese. Low age-adjusted rates are also reported by the Hawaii Tumor Registry for the Chinese and Filipinos here, with an intermediate rate reported for the Hawaiians/part-Hawaiian group.

Incidence of clinical carcinoma of the prostate increases rapidly with age, and small asymptomatic carcinomas are a frequent incidental finding at autopsy in older men. Karube has found latent carcinomas of the prostate in Japanese autopsy specimens with a frequency comparable to that in U.S. whites.<sup>17</sup> This suggests that prostatic cancer may arise in the two populations with equal frequency, but that some environmental factor nurtures and makes them more clinically manifest in the U.S. An alternative explanation is that some inhibitory mechanism, perhaps of an immunologic nature, operates more effectively in Japan than in the U.S.

Akazaki and Stemmermann have compared the frequency and histologic appearance of these latent carcinomas between Japanese living in Japan and living in Hawaii. Using strictly comparable methodology, they found little difference in the overall frequency of carcinomatous foci, but those in Hawaii were larger and more anaplastic than were those in Japan.<sup>18</sup>

Epidemiologic studies have suggested possible relationships of prostatic cancer to particulate air pollution<sup>19</sup> and to cadmium exposure,<sup>20</sup> but these factors do not appear to explain the large difference in incidence between the U.S. and Japan. Further studies are indicated, perhaps in Hawaii.

### LARGE BOWEL

Cancers of the colon and rectum might be regarded as closely related clinically, but there is reason to separate them epidemiologically. While deaths from carcinoma of the colon are about four times as common among U.S. white men as among men in Japan, there is little difference in the rates for rectum cancers. Somewhat different patterns emerge among Chinese and Filipinos, but the predominant implication of Table 1 is that cancer arising above the rectosigmoid junction is epidemic in the United States. Cancer registry data confirm that the gradient between the U.S. and the Orient is greater for the colon than for the rectum, and they suggest

that Japanese and Chinese men in Hawaii are already experiencing rates of colon cancer comparable to those found among whites. Oriental women may still be enjoying a somewhat lower rate, a point of some interest for future investigations of this cancer.

Detailed necropsy studies of the colon were undertaken by Stemmermann among Hawaii Japanese.<sup>21</sup> He found that asymptomatic carcinomas were frequently missed clinically in the older patients. This results in an understatement of the true incidence of the disease in Japanese, but may not greatly affect interracial comparisons, since similar findings have been reported in whites and blacks from Los Angeles.<sup>22</sup> More recent studies include an effort by Stemmermann and Yatani to evaluate the possible relationship of carcinoma of the colon to diverticulosis and polypoid disease.<sup>23</sup> Haenszel and his group have been investigating demographic and dietary histories of Hawaii Japanese with colon cancer. The Japan-Hawaii Cancer Study is planning to relate large bowel cancer to antecedent risk factors, and are carrying out sophisticated analyses of stools of patients in an effort to find possible carcinogenic mechanisms.

### LUNG

The highest rate for lung cancer in the Islands is among the Hawaiians and part-Hawaiians. Men of European ancestry have slightly lower rates, but they are still twice as likely to develop the disease as the local Japanese men. Rates for Chinese and Filipino men are comparable to those for the Japanese. In most of the racial groups, women have about one-third the rate of lung cancer that men have.

The epidemic of carcinoma of the lung now occurring in the United States has been clearly linked to cigarette smoking. Other factors, such as air pollution, may well play a role, however, and the disparate backgrounds of Hawaii's people might contribute to the evaluation of other factors. Quantitative study of past and present differences in smoking habits to see if they are sufficient to explain the varying rates of lung cancer in the several racial groups would be needed. Comparisons of each racial group to its population of origin would also be pertinent. The Japanese community is under study in a case-control format by Haenszel and Lee.

### LIVER

According to registry data, primary cancer of the liver is more common in Hawaii than on the U.S. Mainland or in Japan. The rates for Caucasians (whites) are 50% higher in the Islands than in Alameda County, and among men, all of the other major ethnic groups in Hawaii have still higher rates. Among women, Japanese and Chinese appear to enjoy low rates, though the popu-

lation numbers are small. High rates of primary liver cancer have been reported from the Philippines<sup>24</sup> and in Chinese populations in San Francisco<sup>25</sup> and in Singapore.<sup>26</sup> In the latter city, these rates were lower in second generation persons.

Stemmermann found hepatomas in 61% of Japanese patients with cirrhosis at autopsy and noted that similar findings have been made in Japan.<sup>27</sup> Only 3 to 8% of cirrhotics are found to have hepatoma in white populations,<sup>28</sup> suggesting that some difference in the process leading to or associated with cirrhosis in various racial groups may account for excess hepatomas in the Orient.

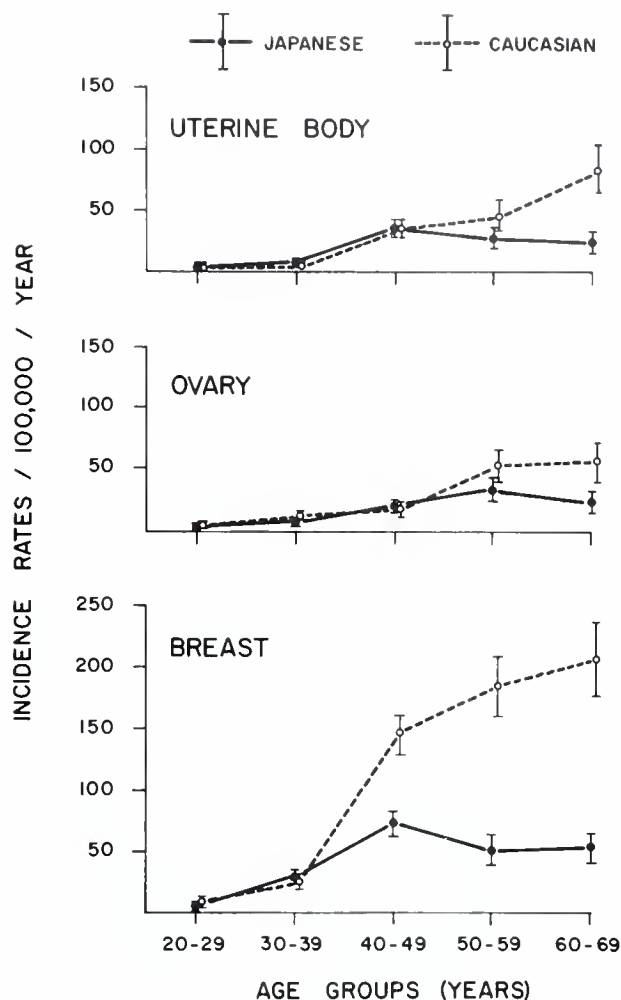
Increased rates of liver cancer among Asian groups are by no means as high as the rates reported from certain sections of Africa, where liver cancer accounts for as many as 50% of cancers coming to autopsy.<sup>28</sup> Africans are most commonly affected between the ages of 25 and 45, whereas only 5 of 120 cases recorded by the Hawaii Tumor Registry occurred in persons under the age of 40.<sup>5</sup> A large number of substances have been found to be carcinogenic for the liver in animals; different mechanisms may account for human hepatic cancer in separate parts of the world. The relationship of the hepatitis-associated antigen (Australia antigen, hepatitis type B antigen) with the induction of cirrhosis and hepatoma might be a worthwhile area of investigation.

### BREAST

Large international differences in the incidence of breast cancer among women have long been known. While the hypothetic protective effect of prolonged lactation has never been clearly substantiated, recent evidence indicates early childbearing is associated with a lower risk of breast cancer in later life. However, this accounts for only a small fraction of the international rate differences.<sup>29</sup>

Doll reported incidence rates in Japan and Singapore at less than one-quarter the rate in Connecticut. The Hawaii Tumor Registry data suggest that Filipino women have a rate akin to that in the Orient; that Japanese women have an intermediate rate; and that the incidence among the Chinese is approaching that of whites. The Japanese and white rates appear similar below the age of 40, but differ widely in the older age groups (Figure 1). Japanese women in Hawaii have tended to have smaller cancers, with fewer metastases than have Mainland white women, and five-year survival has been somewhat better.<sup>30</sup> Possibly this better experience could be explained by either earlier diagnosis in the smaller Japanese breast, or slower growth as a result of genetically-related factor, resulting in a more effective host response.

FIG. 1—Incidence rates, Japanese women and Caucasian by age groups.



Cole and MacMahon have hypothesized that estriol protects against breast cancer, and they have been coordinating an international study of urinary estrogen fractions in young women as an indirect test of this hypothesis.<sup>31</sup> Hawaii has participated in this study under the local direction of Dr. Louis Dickinson. Kumaoka and Bulbrook have found different patterns of progesterone and androgen metabolism in Japanese and white populations.<sup>32</sup> Further studies of hormonal fractions in breast cancer are being planned by the Japan-Hawaii Cancer Study in conjunction with Dr. Greenwood.

### UTERINE CORPUS

Carcinoma of the endometrium accounts for most cancer of the uterine corpus in this country, but in Japan choriocarcinoma comprises 40% of cases.<sup>6</sup> Thus, the substantial increase in cancer at this site in the U.S. reflects an even greater relative excess of endometrial carcinoma. Because of classification problems, quantitation of rate differences is difficult, but a conservative guess puts the Japanese rate for endometrial carcinoma at less than a third of the U.S. rate. Japanese women in Hawaii appear to have rates comparable to whites below the age of 50, but the older Japanese are relatively protected.



Age-adjusted rates for Hawaiians, Filipinos, and Chinese were reported a little higher than for whites, but the numbers are small and the age-specific rates erratic. Cancer of the uterine corpus is rare among Chinese in Singapore.

Epidemiology of carcinoma of the endometrium parallels that for breast cancer.<sup>6</sup> Both are more common in nulliparous patients, and in international comparisons, rates for the two sites are highly correlated.<sup>2,3</sup> Haenszel has pointed out that in migrant studies, rates for breast cancer adjust more slowly to a Westernized environment than do rates for uterine corpus. Data on Japanese women in Hawaii suggest it takes ten years longer for breast rates to equalize than for corpus rates (Fig. 1). This could be due to a longer delay in the adoption of those aspects of Western culture which are responsible for the high rates of breast cancer than for those aspects associated with endometrial carcinomas whatever they might be; or it could simply reflect different induction periods between exposure to a common carcinogen and the development of the two diseases.

#### OVARY

Hawaii Tumor Registry reported 144 cases of ovarian carcinoma between 1960 and 1964. Age-adjusted mortality rates indicate a gradient of about one to four going from Japan to the U.S. Mainland. A large gradient from both Japan and Singapore to the U.S. is indicated by the international incidence comparisons.

Epidemiologically, ovarian cancer is similar to breast cancer and endometrial carcinoma, in that it is more common in single women and tends to be a disease of more developed countries.<sup>2,3</sup> Ovarian cancer tends to rise in a migrant population in concordance with cancer of the uterine body;<sup>6</sup> it does not show the delayed rise associated with breast cancer (Fig. 1).

#### UTERINE CERVIX

Incidence gradients for cancer of the cervix between the U.S. and Japan are somewhat confused by two problems. First, *in situ* carcinoma of the cervix is included in the data from the Miyagi and Okayama cancer registries. Since the number of *in situ* cancers will depend on the extent of Pap smears, measures limited to invasive carcinoma are probably more comparable. However, the number of invasive carcinomas is reduced by an effective cervical cytology screening program,<sup>34</sup> so there is no available method to get truly comparable data. Second, both morbidity and mortality data from Japan include a substantial number of uterine cancers of unspecified site. There is reason to believe that these are mostly cervical cancers.<sup>6</sup>

Haenszel and Kurihara estimated that age-adjusted mortality for American-Japanese wom-

en for cervical cancer was about one-half the rate in Japan and slightly, but not significantly, lower than the rate for U.S. whites.<sup>6</sup> Data from Hawaii Tumor Registry show age-adjusted rates for invasive cases which are quite similar for Japanese, Caucasians, Chinese, and Filipinos, with a somewhat higher rate for part-Hawaiians. There is a suggestion that Japanese women over 60 have more cervical cancer than those of European ancestry of like age. Cancer registry data from Singapore show rates for cervical cancer which are similar to those found in Japan. In general, the reported gradients across the Pacific or among ethnic groups in Hawaii do not exceed twofold. Investigations of genital herpes virus or other possible etiologies of cervical cancer remain to be carried out.

#### URINARY BLADDER

Carcinoma of the urinary bladder is about four times as common in Connecticut as in Japan. The Singapore rate is also very low. Hawaii Tumor Registry reported about half as much bladder cancer among Japanese as in whites, suggesting that the Japanese-Americans have rising rates. Chinese and Hawaiian men have rates similar to Japanese, while Filipino men seem particularly protected. In all races except Filipinos, the disease is more than twice as common in men as in women; in Japanese, this discrepancy is five times.

Smokers risk developing bladder cancer more than twice as often as non-smokers;<sup>35</sup> this may explain some international and sex differences. Rising mortality from bladder cancer in Japan<sup>36</sup> would be consistent with some effect from tobacco, though it could also reflect changing certification practices. In the U.S., there has been no rise in bladder cancer concomitant with rise in lung cancer.<sup>37</sup>

Certain aromatic amines are carcinogenic for urinary bladder and have been associated with an excess of cases in dye industry workers. The average time lapse between exposure and tumor is 16 years,<sup>38</sup> giving some clue to the delay that may explain international cancer differences. No evidence available suggests that exposure to industrial carcinogens explains the international differences in this cancer.

#### THYROID

Data from Hawaii Tumor Registry (1960-1964) suggested carcinoma of the thyroid is more common in Hawaii than anywhere else in the world.<sup>2</sup> This high rate was confirmed by Haber and Lipkovic in a review of cases from five major Oahu hospitals during 1962-1966.<sup>39</sup> Presumably there was considerable overlap of cases for 1962-1964). The number of cases in any group is small after classification by sex and race; women are affected more than twice as often as men.

Age-adjusted rates among men do not vary greatly among the ethnic groups in Hawaii, except Japanese men seem relatively protected. Among women, whites and Japanese have lowest rates, Hawaiians and Filipinos come next, and Chinese are highest. The gradient between Japanese and Chinese is more than three-fold.

Rates for thyroid cancer reported from Japan do not differ greatly from those in Connecticut. However, Alameda County reported a rate twice as high as either of them, so that there is some variability within the U.S. Mainland. Chinese women appear to have twentyfold more thyroid cancer in Hawaii than in Singapore, a phenomenon for which no ready explanation is available. Several benign diseases of the thyroid are also particularly frequent among Chinese women in Hawaii.<sup>40</sup>

Fukunaga and Lockett have shown that careful study of the thyroid gland from routine autopsies among Japanese reveals a high prevalence rate of occult papillary carcinoma in Hawaii (24%)<sup>41</sup> and similar findings have been reported from Japan (18%).<sup>42</sup> These studies also indicate that occult tumors do not increase in frequency with age; some of these lesions appear to be partially necrotic, suggesting that new tumors may not evolve into disseminated tumors, but may be contained by some host factor. These prevalences of occult thyroid carcinomas among Japanese are many times higher than those found by comparable studies among whites.<sup>43</sup>

Only two of the 158 cases in the review by Haber and Lipkovic were incidental findings at autopsy. Of the 159 cases in Hawaii Tumor Registry, 149 had received treatment. In a survey of general population in Japan, persons whose thyroids were abnormal to palpation were referred for work-up and possible surgery; a prevalence rate of papillary carcinoma of at least one per thousand was demonstrated from the surgical pathology.<sup>44</sup> Therefore, though Japanese have a high prevalence rate of occult papillary carcinoma, it apparently seldom causes the affected individuals any inconvenience. By contrast, in whites, the prevalence of occult disease is less, but more often becomes clinically manifest.

In races where the prevalence of occult thyroid

carcinoma is high, the frequency of surgery might have a large impact on the reported incidence of clinical disease. An evaluation of the frequency of occult thyroid carcinoma at autopsy among Chinese, part-Hawaiians, and Filipinos would lead to understanding the high rates reported for those groups. The influence of dietary iodine upon the genesis and progression of those tumors needs to be investigated.

SKIN

As skin cancer is not uniformly reported among cancer registries, reliable international rate comparisons are few in number. Since most cases are non-lethal, mortality comparisons have limited usefulness. The more invasive cancers are sufficiently rare to be difficult to study in Hawaii. Only 13 cases were recorded by Hawaii Tumor Registry from 1960-1964.<sup>5</sup>

The effects of sun exposure and race on the incidence of squamous cell and basal cell carcinoma have been the subject of considerable epidemiologic investigation. Both these entities are most common in areas of low latitude and in persons of European extraction. Allison and Wong reported a study of skin cancer which was carried out in Honolulu in 1955 and 1956.<sup>45</sup> They found that among Caucasian (whites), rates were higher in Hawaii than on the Mainland. In Table 4, their data are compared to more detailed breakdowns from four northern and four southern U.S. cities reviewed by Haenszel.<sup>46</sup> A clear excess of cases of both basal cell and squamous cell carcinoma is seen as one progresses from north to south.

Allison and Wong reported an overall skin cancer rate of 138/100,000 among whites and only 3.1/100,000 among non-whites in Honolulu. They found no significant difference among the various non-white races, though there was a tendency for those racial groups coming from tropical areas to have lower rates than did the more northerly groups. Thus, the crude combined rate ( $\pm 1$  standard deviation) for Hawaiians, part-Hawaiians, and Filipinos was  $1.5 \pm 0.9/100,000$ , while the overall rate for Japanese, Koreans, and Chinese was  $4.3 \pm 1.1/100,000$ .

TABLE 4.—Incidence of basal cell and squamous cell carcinoma among Caucasians in Honolulu and the U.S. Mainland

	FOUR NORTHERN MAINLAND CITIES*		FOUR SOUTHERN MAINLAND CITIES*		HONOLULU**
	(1947)		(1947)		(1955-56)
	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Both Sexes</i>
Basal cell	15.7†	12.4†	61.2†	40.6†	67.5
Squamous cell	8.9	5.3	32.3	14.3	62.0

\*From Haenszel, W. Variations in skin cancer incidence within the United States in U.S. National Cancer Inst. Monograph No. 10, 1963, pp 225-243. The figures are age-adjusted to the 1950 U.S. population.

\*\*Crude rates from Allison, S.D. and Wong, K.L.: Skin cancer: Some ethnic differences. Arch. Derm. 76:737-9, 1957.

†Includes baso-squamous cell carcinomas.



Questions to be answered include those of timing and duration of exposure, and the length of latent period between exposure and development of squamous cell and basal cell carcinomas. The history of immigration of whites to Hawaii provides a spectrum of age and of duration of residence in the tropics which might be fertile ground in which to seek some of these answers. The Islands would also be a favorable location for controlled trials of para-aminobenzoic acid or other agents intended to protect the skin from ultra-violet radiation.

### OTHER CANCERS

With the exception of nasopharyngeal carcinoma and skin cancers (which are mostly not reported), more than 100 cases of each of the tumors discussed above were enumerated by Hawaii Tumor Registry from 1960 to 1964.<sup>5</sup>

A variety of other cancers have rate gradients across the Pacific and are potentially of interest for study in Hawaii, though they may not be quite as common. Prominent among these are the specific leukemias, Hodgkin's disease, choriocarcinoma, renal cell carcinoma, and cancers of the pancreas, esophagus, and gall bladder and extra-hepatic ducts. Investigation of these problems might require decades to accumulate sufficient cases.

### Discussion

Important environmental determinants of common cancers must account for some of the extensive rate differentials among the various countries around the Pacific. The combination of ethnic and cultural diversity in the presence of sophisticated medical diagnosis and care makes Hawaii a favorable location to identify these determinants.

A number of difficult problems arise in trying to identify specific cultural or dietary practices which are associated with chronic diseases. Most prominent among these is the untangling of a single identifiable cause from the mass of variables which change in the process of acculturation. Many of these variables tend to change simultaneously in a given ethnic community, and even in a given individual. An individual who grows up in Hawaii and goes to college will differ from his immigrant parents in many ways, including diet, social and cultural practices, and type of job. These changes may induce physiologic and anatomic changes, including greater stature, obesity, and higher serum cholesterol. If such a person gets a "Western" type of disease, ascertaining which environmental or physiologic changes are responsible may be difficult.

The first approach to the problem lies in char-

acterizing a number of cases, comparing them to appropriate controls, and subjecting the results to univariate and multivariate statistical analyses. A second approach would be to add a dimension to the variability by looking at more than one racial group. Up to the present time, comparisons between Japanese and whites have attracted the most attention because of population size, and because there is a fair amount of reliable health data available from Japan to which comparisons can be made. Studies of the Filipino community would be of advantage, as has been suggested by Bennett.<sup>47</sup> Available information suggests that Filipinos are less Westernized and have lower rates of cardiovascular disease and cancer than do Japanese. They now constitute a substantial group in Hawaii. Their pattern of acculturation to life here is likely to differ somewhat from the Japanese pattern and might provide added insight into environmental determinants of certain cancers and other chronic diseases. The administrative feasibility of cohort and case-control studies in the Filipino community needs to be investigated.

A second major problem that will be encountered in studying cancer in Hawaii is the time lag between environmental influences which may produce disease and the actual appearance of the disease. Studies of radiation and of industrial carcinogens indicate that this delay is often measured in decades. Interracial differences in disease rates now may have been partly determined by cultural differences that existed before World War II. To quantitate past diets, habits, and socio-cultural factors on an individual basis is difficult. To obtain data now on individuals to be followed for disease which may not occur for 20 or 30 years is expensive; furthermore, its practicality would be strained because of long-term follow-up problems and because of the short half-life of investigators.

On the other hand, some insight might be gained into the comparative extent of these time lags for different cancers by looking at age-specific secular trends among the five major ethnic groupings in Hawaii, and relating them to what is known of the social history of these populations. Such an analysis, should be possible, using death certificate information. If the methodologic problems were not too severe, the information gained would provide a useful background for future demographic investigations in the Islands and elsewhere.

Another way of dealing with the time-lag problem is to identify "marker lesions," which carry an increased risk of the later development of a particular cancer but which appear at an earlier age. Some possible examples might be cirrhosis in liver cancer, or polyposis in colon cancer. Possible risk factors should be evaluated

both in patients with benign lesions and in cancer cases. That such "marker lesions" are often more common than the actual cancers is an added advantage.

The problems of disentangling multiple variables and of allowing for time lags between casual factors and the appearance of disease are not, of course, peculiar to Hawaii. They are obstacles to any epidemiologic approach to chronic disease. That they can be overcome is demonstrated by past successes in linking radiation and cigarette smoking to cancer. Basic and clinical research may eventually lead to more effective ways of preventing and treating cancer. But at

the present time, international differences in incidence of various cancers are among the best indicators that a reduction in cancer morbidity and mortality should be possible. Few settings in the world are more favorable to the investigation of these differences than Hawaii.

Acknowledgements

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# Studies on Cancer Mortality in Hawaiian Filipinos, 1961-70

A.M. ALCANTARA, M.D.,\* and B.M. BENNETT, † *Honolulu*

*The Filipinos constitute the largest current migrant group in Hawaii. The following study considers in particular deaths of Filipinos in Hawaii due to malignant neoplasms. During the period studied (1961-70), the following sites showed significantly higher mortality rates than the corresponding ones for the U.S. (men, women, 1965):*

*Filipinos: liver and intrahepatic duct (primary); lymphosarcoma; gallbladder and bile ducts; oropharynx.*

*Filipinas: lymphatic leukemia; trachea, bronchus and lung.*

Filipinos now represent the third largest ethnic group, or 12.4 per cent (1970), of Hawaii's racially diverse population. According to 1970 U.S. Census data, the estimated Filipino population was approximately 95,000 (1972 estimate—108,000), and constitutes the largest of recent migrant groups, coming principally from the northern part of Luzon and the Visayas region. One of the authors has recently made a detailed study (unpublished) of some of the characteristics of Filipino migrants through the available records of the Hawaiian Sugar Planters Association, Honolulu.

Unlike certain other migrant groups (eg, the Japanese), for which extensive and long term mortality studies are being conducted, especially with reference to cancer (eg Rhoads *et al.*) and heart disease, Filipinos do not appear to have been studied yet in any detail.

In the Philippines the leading causes of death are still infectious diseases, including pneumonia, tuberculosis, gastroenteritis and bronchitis, according to the Annual Report, Philippines, fiscal 1968-9. Leading causes of death among Filipinos in Hawaii (Hawaii State Department of Health data, 1970) include diseases of the circulatory system, neoplasms, accidents, in the same order as for the U.S. population as a whole.

Because of the considerable interest in cancer demography in relation to Hawaii, presented here is an analysis of cancer mortality in particular among Filipinos during the decade, 1961-70. On the basis of the following study, it is suggested that the Filipino population in Hawaii may now provide a further and continuing resource of epidemiological interest for emergent chronic disease.

## Results

Table 1A presents crude and age adjusted mortality rates for cancer in Filipinos in Hawaii during the period 1961-70. These have been obtained from tabulations of death certificates recorded in the State Department of Health. For each of the nine major groupings of malignant neoplasm sites coded according to the International Classification of Diseases (ICDA, 8th revision), the corresponding rates for men and women are given. The age adjustments are based on estimates of the state population (1965) from the 1960 U.S. Census and the Hawaii Health Survey, 1969-70.

For comparison purposes, the corresponding cancer mortality rates by sex for the U.S. population (ICDA, 7th edition) in 1965 are given in Table 1B (Source: Vital Statistics of United States, 1965). Although Table 1B is prepared in accordance with the 7th edition, there have in

\*Medical Office, Lapu Lapu, Philippines.

†Research Corporation and School of Public Health, University of Hawaii.

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TABLE 1A—Death rates, malignant neoplasms (Hawaiian Filipinos, 1961-70)

ICDA (8th revision)	Site	CRUDE RATE (per 10,000)		AGE ADJUSTED RATE (per 10,000)	
		M	W	M	W
140-149	Buccal cavity and pharynx	1.0	—	0.5	—
150-159	Digestive organs and peritoneum	5.8	1.0	3.3	1.1
160-163	Respiratory system	2.3	1.0	1.1	1.1
170-174	Bone, connective tissue, skin, and breast	0.4	0.8	0.3	1.0
180-189	Genitourinary organs	1.0	0.9	0.6	1.2
190-199	Other and unspecified sites	1.0	0.7	0.7	1.0
200-209	Lymphatic and hematopoietic tissue	2.5	1.4	1.6	1.5
210-228	Benign neoplasms	0.3	0.1	0.2	0.1
230-239	Neoplasms of unspecified nature	0.2	0.1	0.1	0.1

fact been no basic changes in the neoplasm section of the 8th edition. Thus, for Filipino men, the crude rate for ICDA 150-159 (Digestive organs and peritoneum) and for ICDA 200-209 (Lymphatic and hematopoietic tissues) is higher than for U.S. men as a whole, though the difference is statistically insignificant. For Filipinas in Hawaii, the rate for 200-209 is also slightly though insignificantly higher than for U.S. women as a whole.

TABLE 1B—Death rates, malignant neoplasms (U.S. 1965)

ICDA (7TH REVISION)	AGE ADJUSTED DEATH RATES (PER 10,000)	
	M	W
140-148	0.5	0.2
150-159	5.4	4.1
160-165	1.6	0.8
170-181	2.8	5.6
190-199	2.0	1.6
200-205	1.7	1.3
210-229	0.1	0.1
230-239	0.2	0.1

Table 2 gives the age specific death rates for cancer in Filipinos again grouped by ICDA sites. For ages 45+ years, Table 3 gives the rankings (ties being accorded an average rank)

TABLE 3.—Rankings of age-specific death rates due to cancer (Hawaiian Filipinos, 1961-1970)

	Age (yrs)							
	45-54		55-64		65-74		75 +	
	M	W	M	W	M	W	M	W
150-159	1	5.5	1	1	1	2	1	2
160-163	2	5.5	3	2	2	1	2	1
180-189	5.5	1	6	3	6	3.5	3	3
200-209	3	3.5	2	4	2.5	5	4	5.0

for men and women, respectively. It is evident that malignant neoplasms of the digestive organs and peritoneum are the principal cause of death in Filipino men in all of these age groups, and also a principal or a second leading cause of death in Filipinas from age 55 on.

In Tables 4A-B are given annual death rates for specific neoplasm sites and comparisons with the corresponding U.S. rates (1965), based, of

TABLE 2—Age specific death rates, malignant neoplasms (Hawaii, Filipino, 1961-70)

			AGE (YRS)																	
ICDA (8TH REVISION)	Site		0-9		10-19		20-31		35-44		45-54		55-64		65-74		75 +		Total	
			M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W
140-149	Buccal cavity and pharynx	No. of cases	—	—	—	—	—	—	—	—	2	—	17	—	13	—	5	—	37	—
		Rate (per 10,000)	—	—	—	—	—	—	—	—	0.3	—	2.6	—	1.8	—	8.0	—	1.0	—
150-159	Digestive organs and peritoneum	No. of cases	—	—	—	—	1	—	1	3	23	3	75	8	85	9	31	3	222	26
		Rate	—	—	—	—	0.2	—	1.1	1.0	3.3	1.6	11.1	6.9	31.3	14.9	51.1	16.3	5.8	1.0
160-163	Respiratory system	No. of cases	—	—	—	—	1	1	3	1	13	3	29	6	28	10	11	4	88	25
		Rate	—	—	—	—	0.2	0.2	0.9	0.3	1.9	1.6	4.1	5.2	10.3	16.5	22.4	21.7	2.3	1.0
170-174	Bone, connective tissue, skin, and breast	No. of cases	—	—	—	1	1	1	1	5	2	4	4	4	1	3	3	1	15	19
		Rate	—	—	—	0.2	0.2	0.2	0.3	1.6	0.3	2.2	0.6	3.5	1.5	5.0	1.8	5.1	0.4	0.8
180-189	Genitourinary organs	No. of cases	1	1	—	—	—	—	—	2	2	7	10	5	17	6	9	2	39	33
		Rate	0.1	0.2	—	—	—	—	—	0.7	0.3	3.8	1.5	4.3	6.3	9.9	11.1	10.9	1.0	0.9
190-199	Other and unspecified sites	No. of cases	1	3	—	—	4	1	2	1	2	5	16	3	10	6	1	1	39	20
		Rate	0.1	0.4	—	—	0.8	0.2	0.6	0.3	0.3	2.7	2.4	2.6	3.7	9.9	6.4	5.1	1.0	0.7
200-209	Lymphatic and hematopoietic tissue	No. of cases	4	7	1	2	3	3	4	8	12	4	35	4	28	5	7	1	97	34
		Rate	0.6	1.0	0.7	0.4	0.6	0.5	1.1	2.6	1.7	2.2	5.3	3.5	10.3	8.3	11.2	5.1	2.5	1.4
210-228	Benign neoplasms	No. of cases	—	—	—	—	—	1	2	1	1	—	4	—	1	—	2	—	10	2
		Rate	—	—	—	—	—	0.2	0.6	0.3	0.2	—	0.6	—	0.1	—	3.2	—	0.3	0.1
230-239	Neoplasms of unspecified nature	No. of cases	1	—	—	—	—	—	—	—	—	—	3	—	1	2	1	—	6	2
		Rate	0.1	—	—	—	—	—	—	—	—	—	0.5	—	0.1	3.3	1.6	—	0.2	0.1
Total			7	11	4	3	10	7	16	21	57	26	193	30	187	41	79	12	553	151



TABLE 4A—Deaths and death rates by site of malignant neoplasm in Filipino men residing in Hawaii (1961-70).

RANK	ICDA NO.	SITE	TOTAL NO. OF DEATHS	ANNUAL DEATH RATE (PER 10,000)	DEATH RATE U.S. (1965) (PER 10,000)
1	153	Large intestine, except rectum	54	1.4	1.6
2	162	Trachea, bronchus and lung	47	1.2	1.9
3	154	Rectum and rectosigmoid junction	42	1.1	0.6
4	155	Liver and intrahepatic bile ducts, specified as primary	37	1.0	0.3
5	163	Other and unspecified respiratory organs	34	0.9	2.5
6	151	Stomach	34	0.9	1.2
7	185	Prostate	34	0.9	1.7
8	200	Lymphosarcoma and reticulum-cell sarcoma	29	0.8	0.4
9	204	Lymphatic leukemia	27	0.7	0.8
10	156	Gallbladder and bile ducts	25	0.6	0.2
11	157	Pancreas	22	0.6	1.0
12	203	Multiple myeloma	20	0.5	0.2
13	150	Esophagus	17	0.4	0.5
14	199	Site not specified	15	0.4	1.8
15	189	Other and unspecified urinary organs	11	0.3	.01
16	201	Hodgkin's disease	10	0.3	0.2
17	141	Tongue	10	0.3	0.1
18	146	Oropharynx	10	0.3	.05
19	191	Brain	7	0.2	0.4
20	193	Thyroid gland	7	0.2	.04

TABLE 4B—Deaths and death rates by site of malignant neoplasm in Filipino women residing in Hawaii (1961-70).

RANK	ICDA NO.	SITE	TOTAL NO. OF DEATHS	ANNUAL DEATH RATE (PER 10,000)	DEATH RATE U.S. (1965) (PER 10,000)
1	174	Breast	17	0.7	2.7
2	162	Trachea, bronchus and lung	17	0.7	0.3
3	204	Lymphatic leukemia	14	0.6	0.1
4	180	Cervix uteri	11	0.4	0.8
5	163	Other and unspecified respiratory organs	10	0.4	0.5
6	199	Site not specified	9	0.4	0.8
7	153	Large intestine, except rectum	8	0.3	1.7
8	151	Stomach	7	0.3	0.7
9	201	Hodgkin's disease	6	0.2	0.1
10	200	Lymphosarcoma and reticulum-cell sarcoma	5	0.2	0.3
11	191	Brain	5	0.2	0.2
12	182	Other malignant neoplasm of uterus	5	0.2	0.4
13	183	Ovary, fallopian tube, and broad ligament	5	0.2	0.9
14	154	Rectum and rectosigmoid junction	4	0.2	0.5
15	203	Multiple myeloma	4	0.2	0.2
16	157	Pancreas	3	0.1	0.7
17	155	Liver and intrahepatic bile ducts, specified as primary	3	0.1	0.4
18	193	Thyroid gland	3	0.1	.07
19	170	Bone	3	0.1	.07
20	205	Myeloid Leukemia	3	0.1	0.1

course, on the 7th revision. Specific sites showing a significantly higher rate than the corresponding U.S. one are:

Men— liver and intrahepatic bile duct (primary); lymphosarcoma; gallbladder and bile ducts; oropharynx.

Women— lymphatic leukemia, trachea; bronchus and lung.

**Acknowledgements**

The authors are grateful to Dr. Thomas Burch

of the Research & Statistics Division, Hawaii Department of Health, for making available the data, and also to Dr. N. Rashad of the Genetics Department, University of Hawaii, and Mrs. Doreen Kondo and Mrs. Frances Wakashige for certain computational assistance in the tabulations. Financial support was provided under the Demographic Cancer Research & Training Program, University of Hawaii Research Corporation (contract NIH-71-2208).

# How Older Taxpayers Will Benefit From Voting For Crossley And Dillingham

The peace of your golden years is often marred by concerns over living on a limited, fixed income in the face of high taxes and inflation, and by problems of death and estate planning.

---

## For example:

1. **THE HIGH COST OF LIVING:** Despite increases in Social Security benefits, many senior citizens find living standards reduced. Jobs to provide needed additional income are difficult or impossible to find. Home renters get no benefits from tax exemptions given to aged homeowners. Other tax relief is needed.

2. **THE NEW UNIFORM PROBATE CODE:** This has been stranded in the State legislature since January 22, 1973. The Code offers a new, speedy and efficient way to liquidate and distribute estates.

Says the September, 1972 Reader's Digest, "What probate

laws have in common from state to state are inbuilt factors of long delay, uncertainty, voluminous red tape and high legal costs."

Says U.S. Supreme Court Chief Justice Warren E. Burger, "Relatively simple legal tasks, such as the transfer of property after death, have become encrusted with excess legal baggage that often adds unreasonably to costs. (The new Code) seeks to give options so that where there are no disagreements, the entire process may be accomplished swiftly and with less expense than traditionally associated with probate procedures."

---

Your vote for Crossley and Dillingham is a vote for removal of the four per cent tax on food and drugs, and study of tax exemptions for senior citizens 65 years and older, to relieve your financial burdens.

Your vote for Crossley and Dillingham is a vote for speedy enactment of the new Uniform Probate Code to cut costs of leaving your money and property to your loved ones.

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**Ben**  
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P15



## Caucasian?—Who, Me?!

The term, Caucasian, fallacious though it is, is widespread in Hawaii, even among physicians.

"Caucasian" is not so readily understood elsewhere as a designation for persons of European descent, even among persons of European descent!

A physician, late of Australia, earlier of southern Europe, visited here a few years back, and, on being given Hawaii cancer data by ethnic grouping, appeared puzzled and inquired if there had been a large influx of Russians into Hawaii at some past time.

His question was equally perplexing, until the realization came that he was having difficulty with "Caucasian", as referring to persons the Journal of the American Medical Association is pleased to designate "white".

"White" is not the best term for ex-Europeans in Hawaii, either, because whites are rarely white, but rather various shades of pink, cafe-au-lait or speckled from the tropic sun! But, then, "blacks" are rarely black, and brown-tan, not yellow, is the usual color of people whose ancestors came from Asia.

Blame for the term, Caucasian, can probably be laid at the feet of an early German racist by

the name of Johann Friedrich Blumenbach, sometimes called the "father of physical anthropology."

Blumenbach, who received his medical degree at Gottigen in 1775 and was professor of medicine there, proposed one of the earliest racial classifications. He used cranial measurements to divide *Homosapiens* into five families—Caucasian or white, Mongolian or yellow, Malayan or brown, Ethiopian or black, and American or red. So states the Encyclopaedia Britannica, which prefers "European geographical race" to "Caucasian".

Apparently, Blumenbach's naming folly was due to his observation that "... (the) neighborhood (of Mount Caucasus) and especially its southern slope produces the most beautiful race of men..." and "... in that region, if anywhere, it seems we ought with the greatest probability to place the autochthones of mankind."

Perhaps the simplest course for us editors to follow is that of the JAMA, which simply prefers "black" and "white".

DORIS R. JASINSKI, M.D.

## Queen's Will Rise Again!

The recent removal of accreditation from the Queen's Medical Center internal medicine residency program came as a stunning blow to many of us. It seemed quixotic, since Queen's has probably the best all-around medical residency program in Honolulu.

One reason given for AMA withdrawal of accreditation was the fact that the Queen's medical residency was not directly affiliated with the University of Hawaii, nor was it integrated with other Honolulu hospitals' programs, as the surgery and ob-gyn programs have been for several years.

Another reason was the paucity of instruction for residents by qualified attending physicians in the hospital and in out-patient clinics.

This "thumbs down" by the AMA Residency Review Committee should be looked upon not as a defeat, but as a challenge. From such a critique by an essentially unbiased group—which looks into similar programs throughout the

country—come the seeds for improvement of medical teaching in Honolulu.

Some of us have felt for some time that there should be closer ties between the Queen's medical residency program and the University Department of Medicine. Any means by which this can be effected—even so severe as cutting off accreditation—has to be viewed as a positive force.

Nothing but good can come from being hauled up short and forced to examine faults and repair them.

The Queen's medical residency program will rise like a phoenix from the ashes of what was. And from all this turmoil and soul-searching that has been going on in Honolulu of late, hopefully will come higher standards for hospital training and medical practice in our city and state.

DORIS R. JASINSKI, M.D.

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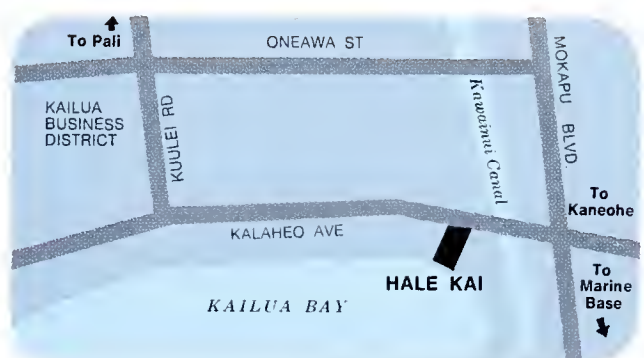
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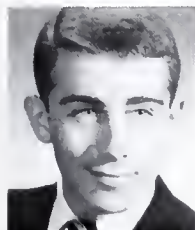
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## Preventive Medicine in World War II. Volume IX. Special Fields

Hoff, E. C., Editorial Director. Contributors Office of the Surgeon General, Department of the Army, Washington, D.C. 1969, 650 pp., \$8.00.

This volume chronicles the astonishing innovations which World War II brought to the practice of medicine in the United States. For example: the use of humor in health education—Dr. Suess was the illustrator of an anti-malaria pamphlet; the development of occupational medicine; consideration of the occupant in vehicle design—pioneered at the Armored Medical Research Laboratory; the first large scale efforts at medical intelligence; the drama of coping with medicine for millions of prisoners of war plus numerous discoveries in and victories over tropical diseases. A sound civilian-military collaboration (the Army Epidemiology Board) was established which served as midwife to a post-war era of unprecedented advances in the control of infectious diseases.

Many of the contributors played significant roles in the changes described. No force was greater than that of the Director of the Preventive Medicine Division, Brigadier General James S. Simmons, a little heralded pioneer in U.S. Medicine.

SCOTT B. HALSTEAD, M.D.

## Progress in Clinical Immunology, Vol. I

Edited by Robert S. Schwartz, M.D., 217 pp., Grune & Stratton, Inc., New York, 1972.

Immunology is one of the most rapidly-developing areas of biomedical endeavour at the present time. Because of the rapid development, textbooks and reviews pertaining to many aspects of immunology go out of date almost before they appear in print.

In addition to this problem, so many annual review volumes pertaining to immunology are being published at the present time that it is exceedingly difficult for the non immunologist to keep track of them. For example, the *Annual Review of Medicine*, the *Annual Review of Microbiology*, the *Annual Review of Biochemistry*, and the *Annual Review of Genetics* all contain review articles pertinent to immunology in every volume, not to mention those annual volumes which devote themselves exclusively to immunology, such as *Advances in Immunology*, *Contemporary Topics in Immunobiology*, and *Contemporary Topics in Molecular Immunology* to name only a few.

The reader may at this point well ask himself whether the addition of another annual series devoted to immunology is needed, such as the volume presently under review, *Progress in Clinical Immunology*, Vol. I, edited by Robert S. Schwartz, M.D.

With the above thoughts in mind, it was not without some trepidation that I opened this book to read. I could not have been more pleasantly surprised. Each of the review articles within was beautifully written, and highly relevant to clinical medicine. Although some knowledge of modern immunology is required, the amount of knowledge presumed by each of the authors is minimal, and the obvious intent is to convey information painlessly to the reader. The editor has done a superlative job in collating the works of diverse

contributors, so that the final product emerges as a beautifully-written example of expository writing. The topics as well were chosen for their great intrinsic interest as well as maximal relevance to conceptual medicine. Each contributing author, moreover, is a world-recognized authority on their subject, so the authoritativeness of each review is established almost beyond question. The presentations, moreover, tend to be well balanced—presenting not only the author's own viewpoint, but any alternative views which remain tenable as well.

The spectrum of topics reviewed is very broad—ranging from a consideration of aetiological agents able to initiate immune complex disease (such as *Streptococcus haemolyticus*, and heterologous proteins such as horse serum) to a description, in patients with disseminated lupus erythematosus (DLE), to monoclonal gammopathies other than multiple myeloma to the relationships between histocompatibility antigens and immune responsiveness (Ir) genes, which ultimately determine a person's susceptibility (or the lack thereof) to a whole variety of immunologic disease entities, including many types of cancer.

In closing, I wish to recommend this book without hesitation to anyone wishing to explore the broad interface between immunology and clinical medicine. If subsequent volumes in this series live up to the promise of this first volume, a most invaluable addition to every medical library has been born.

BENJAMIN LEE GORDON, II, M.D., Ph.D., F.A.C.A.

## Handbook of Poisoning, 8th Ed.

By Robert H. Dreisbach, \$6.50, Lange Medical Publications, 1974.

This handy compact volume would be very useful for quick reference regarding the common poisonings, including shellfish and fish poisoning endemic here in Hawaii.

THOMAS M. CASHMAN, M.D.

## The Essentials of Forensic Medicine

By Cyril J. Polson M.D., F.R.C.P. (Lond.) and D.J. Gee M.B., B.S. (Lond.), 729 pp., £12.00, Pergamon Press, 1973.

Establishing the diagnosis of death by natural causes is routine for the practicing physician. However, as Steve McGarrett of Hawaii 5-0 states it, "Death by induced traumatic insult is murder". Making this type of diagnosis can be difficult for the doctor unskilled in the growing art of forensic medicine, ie, medicine as it relates to the court of law. Although this book is written mainly for the medical examiner, coroner, and the doctor called upon to act as a medico-legal expert, author Polson remarks that the purpose of the book is "to give information which should be a part of the general medical knowledge of an educated doctor."

It is one of the most comprehensive and well illustrated books I have read on the subject of forensic medicine. It is divided into two parts. The first part, Forensic Pathology, covers such subjects as identification, injuries from firearms, strangulation, drowning, sexual offenses, and the "battered baby". Part Two discusses the relationship of law to the practice of medicine. Included in this section are consent to medical examination and treatment, and the medical witness.

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## Life in These Parts

Kuakini radiotherapist **Ed Quinlan** sports a left leg cast. After oncology rounds, **Jack Keenan** asked, "So you fell off the bar stool, eh?" Ed sheepishly admitted that he was swinging on a vine in Halawa Valley on Molokai and fell. He then had to hoof his own way out with a trimalleolar fracture. (We suggest that Ed resume his Ki training under **Hide Oshiro** so he'll know how to fall next time...)

When **Sue Anzai**, our not-exactly-thin HMA receptionist, asked her slightly overweight doctor **Wini Lee** for a prescribed exercise regimen to slim down, Wini replied whimsically, "Your best exercise will be to push yourself away from the table."

As **Bob Midkiff** drove our golf cart down the 15th hole at OCC, we commented on Bob's most delightful intonation of "Aloha," which he uses as a routine greeting. Bob told the following story: "Three men, one white, one black, and one yellow, arrived at St. Peter's pearly gates... The white man said, 'I'm sure to get in... After all, a white man wrote the Bible so St. Peter must surely be Caucasian.' The Oriental was equally confident: 'We Orientals number more than any other racial group on earth... Surely, St. Peter must be Oriental...' But the black maintained, 'Black is power... Certainly St. Peter is black...' Just then came St. Peter's greeting, a melodic 'Aloha!' filtering through the gates..."

Bob reeled off another story before we reached our drives... Bob claims that his father-in-law back in 1957 told him Richard Nixon was not lying when he scratched his forehead, or rubbed his chin... Only when he moved his lips...

This reminded us of **Bernie Fong's** story about Richard Nixon: "President Nixon was depressed. He needed inspiration from predecessors like Jefferson, Lincoln, and others, so he decided to take a walk along the Potomac. He summoned General Haig to accompany him and as they were walking leisurely along the Potomac, engaged in verbal catharsis, he heard a noise behind. The president turned around and there was the entire Washington corps of newsmen following. He told Gen. Haig, 'I'm going to cross the Potomac.' 'Don't do that... You'll surely drown...' Let me order a motorboat," pleaded Haig. "Don't bother," said the President, 'I'll walk across.' And he did, before the astonished onlookers... Next day, the Washington Post headlined the event, 'President Nixon Can't Swim!'"

## Tom Thorson's Corner

A Pollock long-distance runner won his event at the Olympics. He received the Gold Medal award, which he forthwith had bronzed so he wouldn't have to keep polishing it...

When the same Pollock runner heard that there was to be a pre-event urine test, he spent half the night studying up for it...

## Hors de Combat

Maui district health officer **Alice Broadhurst** is pushing for a dog leash law... Her public health nurses are often threatened by dogs when making home calls. In fact one of them was severely bitten 2 years ago.

In May, **Thomas Mar** of Kailua Kona had 12 tires on his three cars slashed for an estimated \$500 damage... Also an unknown amount of gas was removed...

## Betty Anderson's Repertoire

A nun ran out of gas. By sheer providence she found a bedpan in the car trunk. After walking several blocks to the nearest gas station, she finally returned with a bedpan full of gas, which she gingerly started to pour into her gas tank. A truck driver who had stopped to watch this wizardry could no longer contain himself and observed, "Sister, you sure *do* have faith!"

A Japanese tycoon finally developed a people's car just like the German Volkswagen... He summoned his PR man and demanded, "I want a name for this car as soon as possible." The PR man awed at his responsibility asked, "How soon? In one month or one week?" The tycoon said impatiently, "I want a name right now!" "That soon?" was the weak reply... Thus the humble origin of the **Datsun**...

## Elected, Appointed, Honored

The Regional Advisory Group of the RMP of Hawaii elected as new members **Douglas Bell III**, and **Audrey Mertz**... Acting Gov. George Ariyoshi commissioned **Truett Bennett**, **Nelson Murakami**, **Unoji Goto** and **Raymond Taniguchi** to the Medical Advisory Board... The Japan-Hawaii Cancer Study at Kuakini named **Abraham Nomura** assistant clinical director... The Hawaii Heart Association elected **James Orbison** president... The Hawaii State Chapter of the American Red Cross re-elected **Cesar de Jesus** to the board of directors... **Livingston Wong**, project director of the Emergency Medical Services Program since 1972 was appointed to the National Arthritis, Metabolism and Digestive Diseases Advisory Council... **Patrick Lowry** of Waianae Medical Clinic was presented "Good Guy Awards" by Mayor Frank Fasi for "his quick response and attempt to save the life of heart attack victim on April 17"... **Thomas Lau** is the principal investigator for Hawaii's first "Integrated Cancer Rehabilitation Services" program at St. Francis Hospital. The National Cancer Institute award of \$378,000 was awarded to St. Francis Hospital for a two year contract... **John McDermott, Jr.**, Chairman of the UH Med School Dept. of Psychiatry, has been appointed to the six-member national Residency Review Committee of the American Board of Psychiatry and Neurology... The Hawaii Division of the American Cancer Society elected **William Hindle** vice president... Other board members are **Carl Boyer**, **C.L. Gulbrandsen**, **Paul Condit**, **Julia Frohlich**, **Norman Goldstein**, **John Balfour**, **Andre Choan**, **Gene Wai Doo**, **Thomas Lau**, **James Navin**, **Noboru Oishi**.

## Miscellany

A student nurse is holding both wrists on a male patient. MD: "That's not the way to check a man's pulse." Student nurse: "I'm trying to check his *impulses*." (Contributed by **George Suzuki**)

Dick Dennis, our architect friend, says: "A plick is a tourist leaving a 50¢ tip in a Chinese restaurant."

Dick then told the story of a Greek and a Chinaman who had their restaurants across the street. Every Friday morning, the Greek would mosey across the street to his Chinese rival and ask, "What day is this?" "Fliday," would come the answer and the Greek would have a hearty laugh... This instigated the Chinaman to attend night school where he studied real hard. The following Friday, when the Greek came over for his weekly morning laugh, the Chinaman replied, "This is Fr-r-riday, you Gleeek plick!"

Man in restaurant: "Waiter! There's a fly in my soup." Waiter apologized, "Sorry, sir... The chef used to be a tailor." (Aku Head Pupule)



## Community News

In May, Hawaii's Sen. Dan Inouye spoke against retaining controls on health care in a speech before the Senate. He said much controls in the medical profession "represents an unjust and inconsistent exception to the general economic program which has apparently been one of lifting price controls throughout the economy. The isolation of the health care industry for continued economic control can only hinder improvements . . ."

The AMA lists Hawaii's hospitals as among the nine other states charging the fourth highest rates in the nation for semi-private room rates. Hawaii's range is from \$50 to \$59.50. Twenty-five other states have lower rates and 15 states have higher rates. New York hospitals charge \$80 to \$89.50. California and three other states range from \$70 to \$79.50. The west coast states of Washington and Oregon, along with Nevada and seven east coast states, have charges of \$60 to \$69.50.

The Hawaii Heart Association held a Hawaii Heart Fund Golf Tournament at the Mililani Golf Course on Apr. 23. Neal Winn was co-chairman of the tournament.

The Hawaii Breast Cancer Detection Demonstration Project, one of 27 similar projects in the US and jointly funded by the National Cancer Institute and the American Cancer Society opened in April. Project Director is **Fred Gilbert**. Chief radiologist is **Thomas Brown** and **John Balfour** is in charge of staff training. Other participating physicians are **Lina Yu**, coordinating pathologist, and consultants **Elisabeth Anderson**, **Robert Nurdyke**, and **Gary Globber**.

The Kokua Kalihi Valley clinic operates out of two white military surplus trailers in the parking lot of the Kalihi Baptist Church on Gulick Ave. In less than nine months of operation, the clinic treated 425 medical patients and 200 dental patients. It has three volunteer doctors—a pediatrician, a general surgeon and an ENT man and opens between 2 and 4:30 pm every weekday afternoon.

**James Matayoshi**, county president, announced that the Hawaii County Medical Society has established a Speaker's Bureau to promote public education on medical subjects.

The proposed \$5-million Heart and Lung Institute development in North Kohala has been abandoned.

By December, Hawaii will become the first state to have a statewide emergency medical communications system. The Emergency Medical Services Program organized under the HMA sponsorship in 1971 was awarded a grant for \$572,000 by the Federal RMP to expand the Oahu system to include the neighbor islands. The present system allows the Medical Intensive Care Technicians (MICTs) on City & County ambulances to transmit the patient's EKG and to talk directly to an emergency room physician at Queen's or St. Francis.

## Miscellany

A Polock saw his doctor. "I'm having trouble with my sex life. Nothing's happening." Doctor: "What you need is regular exercise. Try running 10 miles a day." "But doc, I can't run." "Then you must jog or walk. And you must do this for 14 days." Exactly 14 days later, the Polock was back in the doctor's office. "Say doc, you were right. I feel just great." Doc: "How's your sex life?" "Well, you know doc, 10 miles a day for 14 days. That's 140 miles... I haven't been home yet to find out." (**Elisabeth Anderson**)

The Czech football player was having a vision test done. "Read the bottom line," instructed the examining physician. "Read it, Doc? Hell, I know the guy."

## Bulletins

In April, Walter McNerney, president of the Blue Cross predicted in Washington that the health care cost could soar as much as 17% in the 12 months following the expiration of wage and price controls. He said, "There's a lot of pent-up frustration out there in the health field on the part of the guys who felt they held the line on inflation better than the rest of the economy." Then in May, President Nixon raised the ante and declared that the end of controls may boost doctor bills by 22% this year.

Psychiatrist **Robert Butler** told a AMA sponsored national conference that many elderly men and women can, and do, perfect the art of lovemaking to new levels of satisfaction. "The evidence clearly points to a continuing physical capacity and sexual desire throughout life, even into the advanced eighties." (So there goes the fast-fading myth that holds that anybody over 45 is on a sexual decline.)

**Thomas Kosasa**, a research fellow at Harvard Medical School reports that radioactive tracer measurement of human chorionic gonadotropin (h.c.g.) can detect pregnancy five days before the woman misses her period at a cost only three times the regular urine pregnancy test. The UH School of Medicine apparently has the means for performing this test . . .

Wasim Siddiqui and S.D. Chou, both PhD's with the UH Dept. of Pharmacology, are investigating a pepstatin, an inhibitor which may develop into a cure for malaria... The Hawaii Thoracic Society announced research grants totaling \$14,000 to Michael Light, George Read, Douglas Massey and Kerry Yasunobu . . .

## Tom Leineweber's Humor

The physician counseling a couple with marital difficulties was trying to evaluate their sexual adjustment. He checked on the positions, the frequency, the foreplay, the hangups... He asked, "Are you both relaxed?" The wife replied, "He's so relaxed he falls asleep right afterwards..." "Does he smoke before or after?" "Frankly, Doc, I've never really looked to see."

Do you know why there are no Polock pharmacists around? They can't figure out how to put the bottle with the blank label into the typewriter to type out the prescription . . .

*Irene Wong Says:*

Anyone wanting to stop smoking should try lettuce leaf cigarettes... They smoke like cigarettes, taste like cigarettes and feel like cigarettes. The only trouble is that you keep getting up at 3 am with an irresistible urge to eat mayonnaise . . .

## Health Dept.

**Ira Hirschy**, Communicable Disease Division Chief warned that polio is a danger in the Manila area and giardiasis strikes visitors to the Soviet Union. He urged travelers to Russia drink only boiled water and bottled carbonated beverages... State Health Director **Walter Quisenberry** approved an amendment eliminating mandatory smallpox vaccinations for children... On Maui, district health officer **Alice Broadhurst** closed the free adult communicable disease clinic in Wailuku after 3½ years because of the "tremendous decrease in gonorrhea cases and lack of partial Federal funding." Alice Broadhurst sought in April to establish a decal system for restaurants and to educate the public to eat only in restaurants displaying a decal. She feels that the decal system will give sanitarians a working tool to keep restaurants clean the year round... **Ned Wiebanga**, State epidemiologist, was disappointed in the response of the public, although more than 1,000 school children received free measles shots in Leeward Oahu in April... In April, the State Health Dept. warned first that pau'au, a reef fish caught off Olowalu and Lahaina, Maui, may cause ciguatera fish poisoning (The symptoms, a few hours after consumption, include a tingling sensation in the lips, mouth, and throat, vomiting, diarrhea, and reverse temperature sensations)... Also in April, **Ned Wiebanga** announced that 20,000 pounds of frozen mahimahi from Ecuador had been condemned because of 22 cases of scombroid poisoning which causes hives, tingling or burning around the mouth, flushing, headache, eye irritation, and occasional fever... Earlier, in March, **Walter Quisenberry** warned that there may be a potential hazard in consuming locally caught kahala because of several suspected cases of ciguatera fish poisoning . . .

## Entrepreneurs

**William Dung**, chief of staff Kaiser Foundation, recently completed a three month course in Harvard Business School's Advanced Management Program. The Hawaii School for Girls auction included a free cosmetic surgery by **Leabert Fernandez**. Leabert says, re the lace-lilt sex ratio, "One out of every 25 used to be a man. Now it's one out of every 12." We watched **Barton Becker** posting a "For Sale" sign in front of a newly reconditioned house on Wilhelmiana Rise one Sunday afternoon and learned that he had a real estate license for over 5 years...

## In Memoriam

Editor, *Hawaii Tribune-Herald*: (June 4 '74)

Last week one man's work on earth was done. In the eyes of God, that is. For a physician, his work is never done. Always at his door is the never-ending stream of ailing humanity, day and night.

This physician came to Kona ostensibly to retire, after having had several heart attacks. But his patient load increased, day by day, until he had several more heart attacks. Even with this sword hanging over his head, ignoring the "take it easy" of his own doctor, he went back to his usual long day, and also took his usual turn of 24-hour call at the hospital for a month at a time, uncomplainingly.

Finally his tired heart was given permanent rest. His sharp humor and easy smile will always be remembered by his many patients and friends.

Kona, and the world, was made a better place by the life of **Dr. Robert Seelye**.

—Jill Hill—

## Conference Dialogue

ENT man **George Kimata's** 66-year-old Japanese man with laryngeal Ca had a T1 lesion. **Ed Quinlan** was hopeful: "Most radiotherapists feel T1 and T2 lesions are amenable to radiotherapy. It offers the same 5-year survival as any surgery which will strip the cords... T3 and T4 lesions, however, are surgical problems..." **Tom Fujiwara** was curious: "No fear of laryngeal edema?" Ed replied confidently, "That's an old fear... It never happens." Someone asked about recurrence... Ed was dogmatic: "T1 has less than 10% local recurrence and T2, a little above a 10% recurrence... Even after recurrence, 50% are still salvageable with surgery."

Surgeon **Glenn Kokame's** 52-year-old Japanese man had alveolar carcinoma of the RUL... Pathologist **Grant Stemmerman** was optimistic: This is the commonest lung tumor in this community, whether the patient is oriental or not... Probably fortunate since it has the best survival rate... Segmental resection has the largest 5-year survival since it is a smaller lesion... and therefore a better prognosis than hilar or oat cell types... Being subpleural, this lesion has probably extended to the surface and has contaminated the pleural surface... Immunologist **Ben Gordon** elucidated, "Immunotherapy has nothing to offer once there is sufficient tumor to cause symptoms... We would like as much of a surgical specimen as possible to make an autologous vaccine... BCG mixed with the tumor probably gives the best results..."

Moderator **Quint Uy** asked, "What's the experience of immunotherapy with lung Ca?" Ben: It's just being done now... Israel is doing this in France. In Canada, all the centers are involved in a protocol."

Stemmy added: "What **Dr. Gordon** has brought out is that if the lesion is small, it should not be fixed, but made available for vaccine... This should be posted in the OR and surgeons made aware... This is alveolar Ca. I don't consider it in the same category as bronchogenic Ca. There is nothing to lose with immunotherapy..."

Chemotherapist **Jack Keenan** agreed, "We don't have any good chemotherapeutic drugs for bronchogenic Ca, but

this is different... The two drugs claimed to be effective are cytoxan and CCNU."

Quint Uy turned to Ed Quinlan: "How would you treat with cobalt?" Ed replied, "I would stick strictly to the pleura itself. The point is not to destroy any more tissue than necessary..."

## Jokes by Jon Won

An old maid was accosted by a thief. "Give me all your money!" "But I don't have any." The thief searched briefly and found nothing. He threatened, "If you don't give me your money, I'm really going to search you." He searched and searched feeling her every nook and corner and found nothing. He was finally about to give up when she protested, "Oh, please don't stop now... I'll write you a check."

A guy coming out of a bar spotted a drunk sobbing in a corner. "Wot's the matter?" "I did a terrible thing. An hour ago, I sold my wife for a bottle." "Feeling remorse eh? You found out that you really needed her, huh?" "Yeah... I'm still thirsty."

## Physicians Speak Up

Our physical fitness advocate **James Bennett**, who cycles to work daily, had this comment regarding a \$20 fine a Richard Romer was assessed because he was tardy in paying a \$1 bicycle license fee. "This is an example of one of the more ludicrous aspects of our modern resource-wasting, air-pollution, over-fed, under-exercised society."

**Jack Scaff, Jr.** predicts socialized medicine will come, bringing corroded services with it. Already insurance programs allow the luxury of unnecessary medicine too few people have access to current health insurance. Jack feels that change should come in extending the coverage to more people, not replacing insurance plans with an American equivalent of Great Britain's National Health Service.

Testifying before the State Advisory Council on Hospital and Medical Facilities, **Richard K.C. Lee**, former State health director, decries the statement that "Hawaii is the last stronghold of isolation of leprosy patients in the world... Leprosy care should be integrated into the general hospital structure as is being done all over the world, yet we continue to segregate and isolate leprosy patients... When do we change our archaic thinking?" Rich advocates that patients at Hale Mohalu be transferred to Leahi and that Kalaupapa should not be closed, but should be opened up to the rest of the State and not kept in isolation.

**Grant Stemmerman**, principal investigator of the Japan-Hawaii Cancer Study, was reassuring: "Even though we are pretty certain there is a positive correlation between colon cancer and the intake of beef and string beans, this doesn't mean people should stop eating beef and stringbeans."

Naturist **John M. Corboy** raised objections to the efforts of the Campbell Estate Trustees to close the Hawaii Nudist Park, the "idyllic Kahuku haven..." "The trustees of the Campbell Estate are certainly entitled to their bias—anachronistic though it be... But social nudism in America is here to stay."

**Wilbur S. Lummis, Jr.** was impressed by Claire Booth Luce's recent soliloquy and did a soliloquy of his own: "While on the one hand, men of lesser mien do sit around and snort and whine about the inconsistencies and resultant personal inconveniences they have suffered, still others, perched on high, do flap and caw in selfrighteous indignation about the eschatological threats and consequences of that which they in hindsight do so well predict. One thing alone, however, remains and that we cannot, must not deny—we are Americans; we will prevail, even if time should bear out dire portents of our present leadership... The play's the thing wherein I'll catch the conscience of the King."

**DeWitt Hendee Smith** berated the editor of the *Hawaii Tribune Herald* for opposing fluoridation and wrote: "Actually, according to informed public health authorities, there is no more scientifically studied, proven, harmless, or beneficial public health measure yet found. Certainly fluorida-



tion invades privacy and freedom of choice. So does water chlorination, which is universally accepted. . . ."

**Alfred Morris**, president of the Hawaii Heart Assn., suggests, "Make a New Year's resolution that may save your life. Resolve to take better care of your heart by controlling blood pressure and reducing your risk of heart disease."

**Joseph Hennessy, Jr.**, medical director of Hawaii's Methadone Program, warns about three drug fronts in Hawaii: "Heavy sedative abuse (abusers are called "red freaks"); increasing trickle of illicit methadone; and increasing "doctoring" of street heroin with barbiturates and other drugs."

**Ron Pion** feels that parents should educate their children about birth and death from day one. "Let's don't set up any artificial hindrances to living. Birth is. Life is. Death is. Kids are a part of all of it, just as much as anyone. . . ."

**Harry Arnold, Jr.**, when interviewed by Cynthia Eyre for *Honolulu* about the transmission of disease by kissing, revealed that "The social kiss on the cheek is more innocuous than the handshake, where a lot of really dreary germs reside." But Harry feels that we should not give up skin contact: "There are emanations from finger tips that are good. You can tell a lot about people when you shake their hands. They reveal themselves as cold, nervous, vibrant, strong, weak, wishywashy, or warm human beings." (All that from a handshake?)

**Alfred Morris** says, "Milk is an excellent food, but it is not the butterfat that makes it good. . . . One of my pet peeves is that we don't give skim milk." Al feels that skim milk or instant nonfat dry milk should be given to children from the day they're able to drink milk.

**Elisabeth Anderson** wants more bikeways. She wrote to E. Alvey Wright, director State Transportation: "I feel I speak for many people in all walks of life who would like to bicycle to and from activities and work, but cannot because of the danger involved in sharing narrow areas with fast moving cars. . . ." She recommends that bike lanes be created by removing parking on one side of a street and that where there are sidewalks, one side could be for bicycles.

**Rowlin Lichter** doesn't like car pool signs. He wrote: "Apparently the ladies from the Outdoor Circle are all on vacation or may have been entirely cowed by the energy crisis. Not only have they apparently abdicated to the highway czars' demands for H-3, but now they are allowing highway advertising signs without the slightest peep. . . ."

**Tom Frissell**, our HMA prexy, has strong views about government control and spoke out against gas rationing back in February. The following are excerpts: "Even in is reprehensible. For the public to accept such an inroad on its freedoms and the economy in peacetime can only mean disaster, as has already been demonstrated by the wage-price fiasco. . . . The main fault lies with the government permitting itself to join with the oil industry in setting up semi-monopoly controls regarding price and production rather than requiring competition on an open market and no government payoff. . . . I repeat, rationing is harmful to all rather than helpful, and is used as a method by power-hungry politicians and other statists to further enslave the populace, not to benefit it."

### *Book Reviews continued from 298*

The chapter on "The Signs of Death" is very timely as the development of transplant surgery requires the doctor to distinguish between death and suspended animation.

The book is recommended for those who are interested in the how and the "who donnit".

ROBERT L. PEKARSKY, D.D.S.

### **Group Therapy, 1973 an Overview**

*By Lewis R. Wolberg and Emmanuel K. Schwartz, Intercontinental Medical Book Corporation, New York, 1973.*

Group Psychotherapy, 1973, is the first in a new series of collected articles to be published yearly. The purpose of the series is to answer questions in group psychotherapy and to provide guidelines for the solution of outstanding problems in this field. The book is eclectic in its point

of view. There are statements from experts in the area of group psychotherapy who practice not only in the United States but also abroad. There are a number of therapeutic approaches outlined including articles on the use of the psychoanalytic method in group psychotherapy, articles on family therapy, application of the group method to the treatment of married couples, discussion of innovative techniques, such as described by R. Corsini, and articles directed to problems of transference and counter-transference.

For those who are already experienced in the practice of group psychotherapy this book provides a number of valuable insights and technical pointers.

BYRON A. ELIASHOF, M.D.

### **Current Pediatric Diagnosis and Treatment**

*By C. Henry Kempe, M.D., Henry K. Silver, M.D. and Donough O'Brien, M.D., F.R.C.P., et al, 1,000 pp., Lange Medical Publications.*

This book of useful information, especially to the practicing pediatrician, covers current advances in the areas of child health care. The authors have included important current concepts and discussion on both common and uncommon disease entities. They have focused especially on points of practical importance to the pediatrician. The bibliography contains excellent references, usually of general reviews, but also a large number of references which are pertinent to specific subjects discussed. I feel this is an excellent book for reference, especially to the practicing pediatrician, and for students studying the subject of pediatrics.

CARL W. LEHMAN, M.D.

### **Hawaii Medical Library Recent Acquisitions List, June 1974**

#### **Gastroenterology**

Sleisenger, Marvin H. Gastrointestinal disease; pathophysiology, diagnosis, management, by Marvin H. Sleisenger and John S. Fortran. Philadelphia, 1973.

Wruble, Lawrence D. Gastroenterology; 1,000 multiple choice questions and referenced answers, edited by Lawrence D. Wruble and Myron Lewis. 2d ed. Flushing, N. Y., Medical Examination Pub. Co., c1973.

#### **Genetics, Human**

Thompson, James Scott, Genetics in medicine, by James S. Thompson and Margaret W. Thompson, 2d ed. Philadelphia, Saunders, 1973.

#### **Gynecology**

Benson, Ralph C. Handbook of obstetrics and gynecology. 4th ed. Los Altos, Calif., Lange, 1971.

Probst, Raymond E. Obstetrics and gynecology specialty board review; 1500 multiple choice questions and referenced answers, edited by Raymond E. Probst and Thomas M. Mier. 4th ed. Flushing, N. Y., Medical Examination Pub. Co., c1973.

#### **Handicapped**

Ellingson, Careth. Directory of facilities for the learning-disabled and handicapped, by Careth Ellingson and James Cass. 1st ed. New York, Harper & Row, c1972.

#### **Health and Welfare Planning**

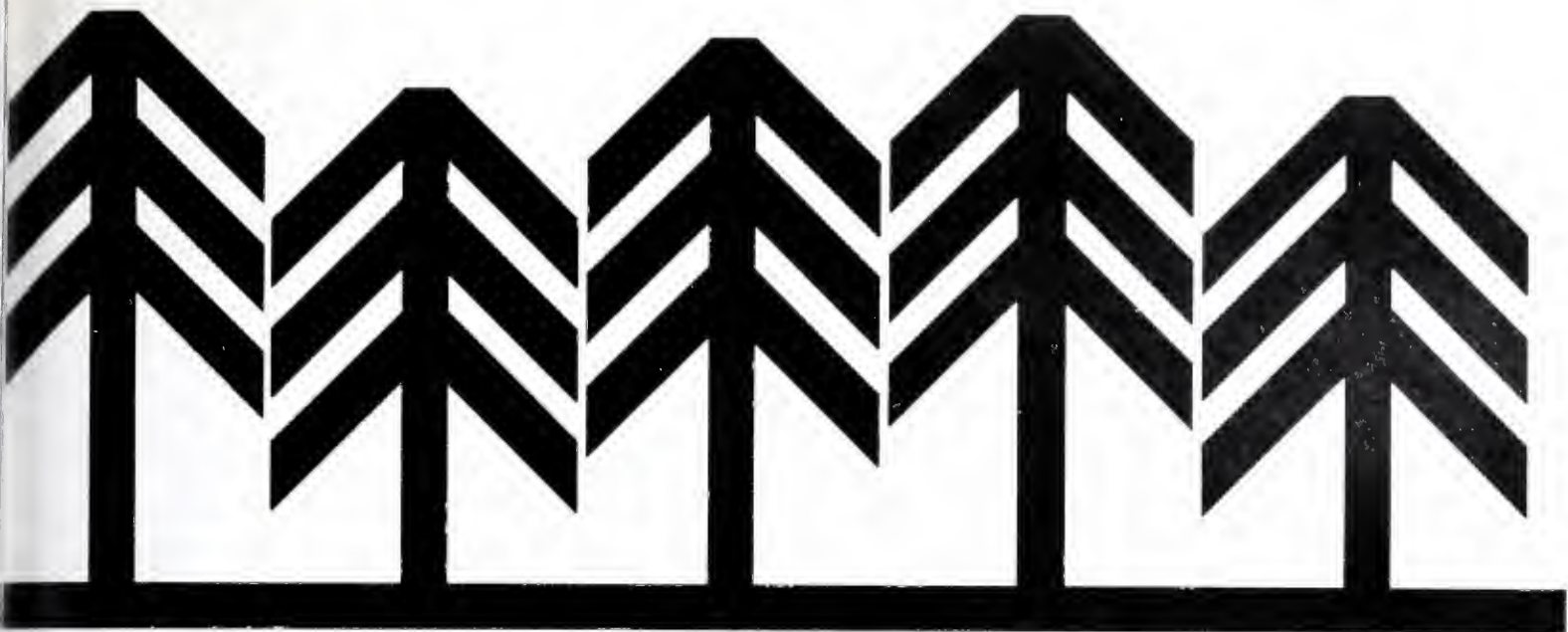
Levey, Samuel. Health care administration; a managerial perspective by Samuel Levey and N. Paul Loomba. Philadelphia, Lippincott, 1972.

#### **Health Manpower**

Northeastern University, Boston, Mass. Dept. of Economics. Restructuring paramedical occupations; a case study; final report, January 1972. Boston, 1972.

#### **Hearing**

Kryter, Karl David. The effects of noise on man. New York, Academic Press, 1970.



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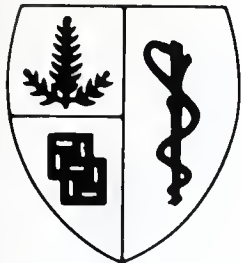
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General lectures will cover the following topics: birth control, when and how to transfuse, motor vehicle injuries, prevention of heart attack, pre-CCU management of heart attack, rehabilitation after heart attack, urinary tract infections, nutritional anemia, management of rheumatoid and osteoarthritis, headache, depression, sleep disorders, new antibiotics, office management of diabetes, hypertension, comprehensive approach to primary care.

Elective sessions will include: **behavior modification**: obesity, smoking, alcoholism; **bones and joints**: neck and arm pain, low back and leg pain, bursitis and tendonitis, athletic injuries; **medical emergencies**: resuscitation, arrhythmias, drug ingestion, coma; **allergy**: hay fever, asthma, eczema and urticaria; **problem-oriented records**: the defined data base, construction of the problem list, workshop; **trauma**: hand injuries, face injuries, head and spine injuries, chest injuries; **dermatology**: contact dermatitis, bacterial and viral infections, fungal infections, dermatoses; **acid-base**: acidosis, alkalosis, mixed problems; **genetics and child health**: general review and cytogenetics, genetic counseling and prenatal diagnosis; immunization, school problems.

Faculty for this course will consist of thirty-five physicians of the Stanford University School of Medicine.

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General lectures will cover: hemodynamic monitoring, antiarrhythmic drugs, surgery for ischemic heart disease, respiratory failure: pathophysiology-manifestations and management, the practical use of ventilators, clotting mechanisms, common bleeding problems: congenital-acquired, diabetic ketoacidosis and hyperosmolar coma, lactic acidosis, neurological emergencies, thromboembolism, drainage of the urinary tract.

Elective sessions will include: **EKG problems**: acute myocardial infarction, tachyarrhythmias, bradyarrhythmias, changes in severe illness; **blood gas and acid-base problems**: respiratory acidosis and alkalosis, metabolic acidosis, metabolic alkalosis, oxygen transport; **salt and water problems**: water, sodium, potassium, miscellaneous syndromes; **acute myocardial infarction**: cardiogenic shock, arrhythmias, emergency surgery, acute rehabilitation in CCU; **ICU methods**: resuscitation, protecting the brain after arrest, central venous pressure and arterial catheters, pacemakers; **trauma**: injuries to the face, injuries to the chest, injuries to the head and spine; **neonatal crises**: neonatal asphyxia, respiratory distress syndrome, sepsis, metabolic crises in the newborn; **ICU management problems**: use of blood components, acute renal failure, antibiotics in septic crises, hyperalimentation.

Tuition for this course is \$225, with registration required no later than October 25. Early registration is advisable as this course has been oversubscribed in previous years.

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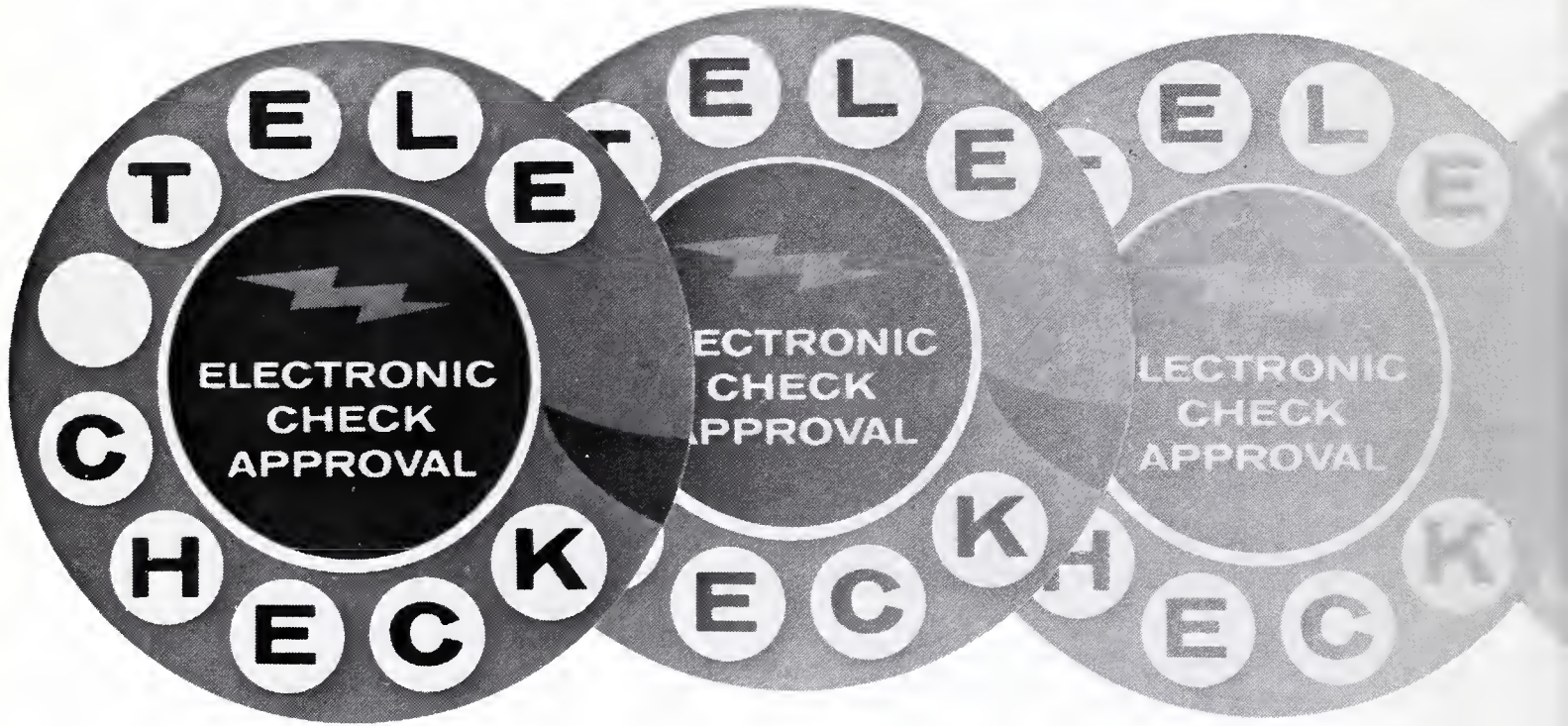
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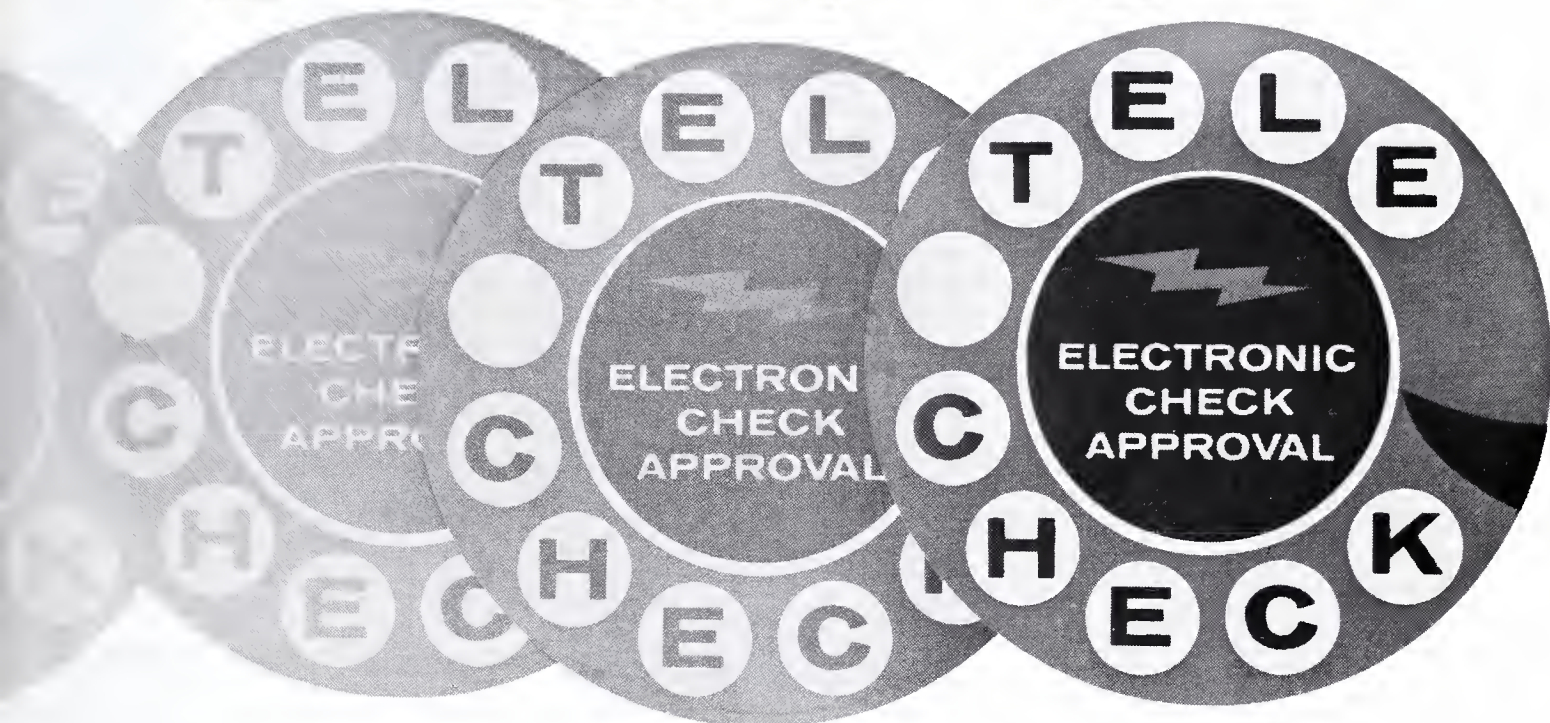
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# NOV. 4



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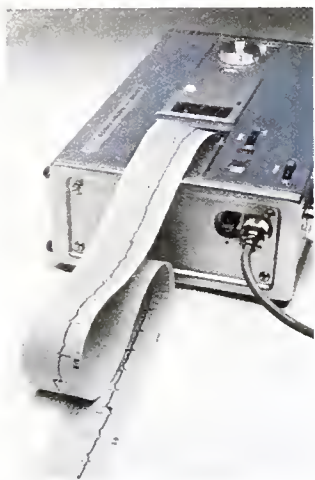
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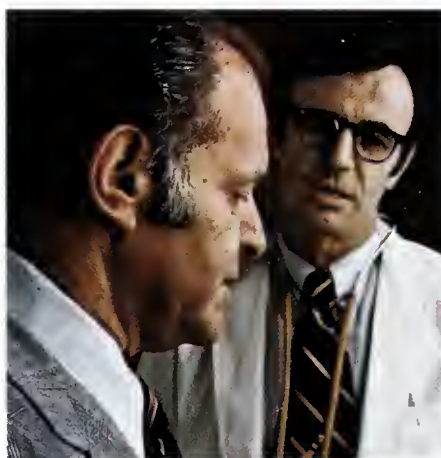
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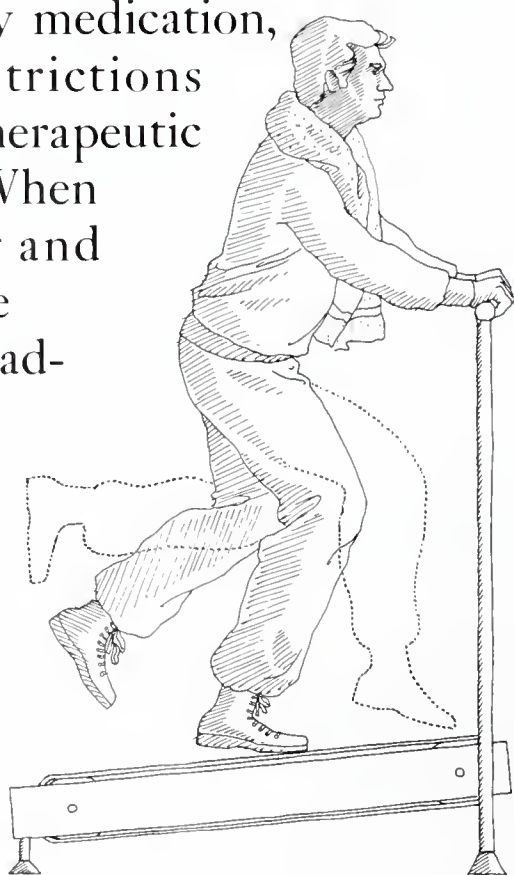


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1 or 2 capsules t.i.d./q.i.d.



**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Relief of anxiety and tension occurring alone or accompanying various disease states.

**Contraindications:** Patients with known hypersensitivity to the drug.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

**Precautions:** In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or over sedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

**Adverse Reactions:** Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

**Supplied:** Librium® Capsules containing 5 mg, 10 mg or 25 mg chlordiazepoxide HCl. Libritabs® Tablets containing 5 mg, 10 mg or 25 mg chlordiazepoxide.



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Division of Hoffmann-La Roche Inc.  
Nutley, New Jersey 07110



# how to civilize the of peptic ulcer...

give pain killers?...prescribe frequent eating?...use antacids only

## give pain killers only?

They relieve pain but may cause patient drug dependency and unnecessary sedation.

## prescribe frequent eating only?

Frequent feeding helps buffer acid, but caloric, digestive, and social considerations make frequent eating both difficult and impractical.

## use antacids only?

Antacids, like food, help neutralize or buffer stomach acidity. Their action is short, usually lasting only 1 to 1½ hours (given four hours after a meal).\* Some patients may require antacids every half hour.



# When you add Pro-Banthine<sup>®</sup> you

brand of  
propantheline bromide

**Indications:** Pro-Banthine is effective as adjunctive therapy in the treatment of peptic ulcer. Dosage must be adjusted to the individual.

**Contraindications:** Glaucoma, obstructive disease of the gastrointestinal tract, obstructive uropathy, intestinal atony, toxic megacolon, hiatal hernia associated with reflux esophagitis, or unstable cardiovascular adjustment in acute hemorrhage.

**Warnings:** Patients with severe cardiac disease should be given this medication with caution.

Fever and possibly heat stroke may occur due to anhidrosis.

In theory a curare-like action may occur, with loss of voluntary muscle

control. For such patients prompt and continuing artificial respiration should be applied until the drug effect has been exhausted.

Diarrhea in an ileostomy patient may indicate obstruction, and this possibility should be considered before administering Pro-Banthine.

**Precautions:** Since varying degrees of urinary hesitancy may be evidenced by elderly males with prostatic hypertrophy, such patients should be advised to micturate at the time of taking the medication.

Overdosage should be avoided in patients severely ill with ulcerative colitis.

**Adverse Reactions:** Varying degrees of drying of salivary secretions may



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# HAWAII MEDICAL JOURNAL

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# Both often



- Predominant psychoneurotic anxiety

- Associated depressive symptoms

**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful

# respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as the excessive anxiety is relieved, the depressive symptoms associated with it are also often relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent in the patient within a few days rather than in a week or

two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.

For further information on this subject, the following references are provided:

1. Henry BW, *et al*: *Dis Nerv Syst* 30:675-679, Oct 1969.
2. Hollister LE, *et al*: *Arch Gen Psychiatry* 24:273-278, Mar 1971.
3. Claghorn J: *Psychosomatics* 11:438-441, Sept-Oct 1970.

surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of child-bearing age, weigh potential benefit against possible hazard.

**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle



## Valium<sup>®</sup> (diazepam) 2-mg, 5-mg, 10-mg tablets

in psychoneurotic  
anxiety states  
with associated  
depressive symptoms

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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*Cover: See Figure 1, page 329, Paragonimiasis  
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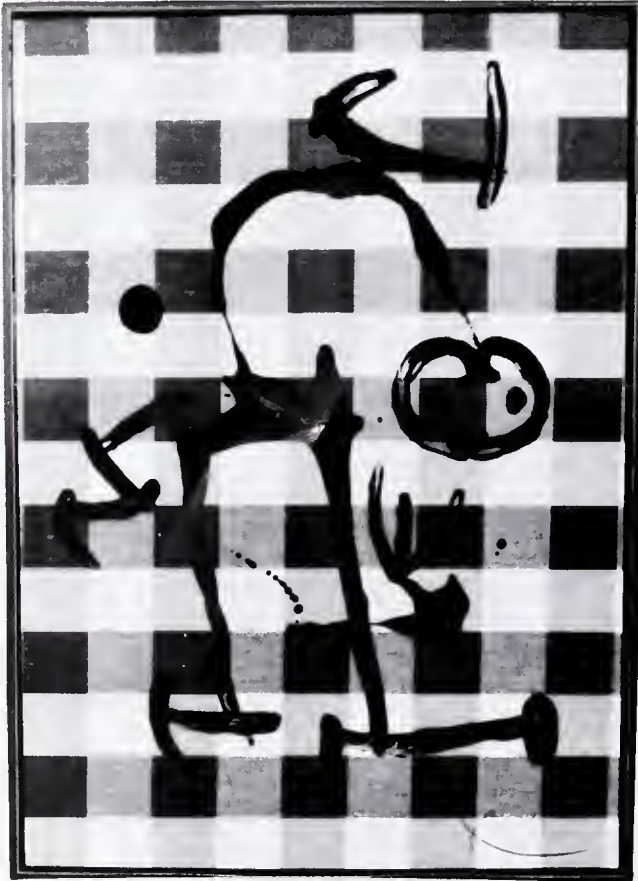
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## BRIEF SUMMARY

(For full prescribing information, see package circular.)

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**Indications:** Based on a review of PREMARIN Tablets by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications for use as follows:

**Effective:** As replacement therapy for naturally occurring or surgically induced estrogen deficiency states associated with: the climacteric, including the menopausal syndrome and postmenopause; senile vaginitis and kraurosis vulvae, with or without pruritus. **"Probably" effective:** For estrogen deficiency-induced osteoporosis, and only when used in conjunction with other important therapeutic measures such as diet, calcium, physiotherapy, and good general health-promoting measures. Final classification of this indication requires further investigation.

**Contraindications:** Short acting estrogens are contraindicated in patients with (1) markedly impaired liver function; (2) known or suspected carcinoma of the breast, except those cases of progressing disease not amenable to surgery or radiation occurring in women who are at least 5 years postmenopausal; (3) known or suspected estrogen-dependent neoplasia, such as carcinoma of the endometrium; (4) thromboembolic disorders, thrombophlebitis, cerebral embolism, or in patients with a past history of these conditions; (5) undiagnosed abnormal genital bleeding. **Warnings:** Estrogen therapy should not be given to women with recurrent chronic mastitis or abnormal mammograms except, if in the opinion of the physician, it is warranted despite the possibility of aggravation of the mastitis or stimulation of undiagnosed estrogen-dependent neoplasia.

The physician should be alert to the earliest manifestations of thrombotic disorders (thrombophlebitis, retinal thrombosis, cerebral embolism and pulmonary embolism).

If these occur or are suspected, estrogen therapy should be discontinued immediately.

Estrogens may be excreted in the mother's milk and an estrogenic effect upon the infant has been described. The long range effect on the nursing infant cannot be determined at this time.

Hypercalcemia may occur in as many as 15 percent of breast cancer patients with metastases, and this usually indicates progression of bone metastases. This occurrence depends neither on dose nor on immobilization. In the presence of progression of the cancer or hypercalcemia, estrogen administration should be stopped.

A statistically significant association has been reported between maternal ingestion of diethylstilbestrol during pregnancy and the occurrence of vaginal carcinoma in the offspring. This occurred with the use of diethylstilbestrol for the treatment of threatened abortion or high risk pregnancies. Whether or not such an association is applicable to all estrogens is not known at this time. In view of this finding, however, the use of any estrogen in pregnancy is not recommended.

Failure to control abnormal uterine bleeding or unexpected recurrence is an indication for curettage.

**Precautions:** As with all short acting estrogens, the following precautions should be observed:

A complete pretreatment physical examination should be performed with special reference to pelvic and breast examinations.

To avoid prolonged stimulation of the endometrium and breasts in climacteric or hypogonadal women, estrogens should be administered cyclically (3 week regimen with 1 week rest period—withdrawal bleeding may occur during rest period).

Because of individual variation in endogenous estrogen production, relative overdosage may occur which could cause undesirable effects such as abnormal or excessive uterine bleeding, mastodynia and edema.

Because of salt and water retention associated with estrogenic anabolic activity, estrogens

should be used with caution in patients with epilepsy, migraine, asthma, cardiac, or renal disease.

If unexplained or excessive vaginal bleeding should occur, reexamination should be made for organic pathology.

Pre-existing uterine fibromyomata may increase in size while using estrogens; therefore, patients should be examined at regular intervals while receiving estrogenic therapy.

The pathologist should be advised of estrogen therapy when relevant specimens are submitted.

Because of their effects on epiphyseal closure, estrogens should be used judiciously in young patients in whom bone growth is incomplete.

Prolonged high dosages of estrogens will inhibit anterior pituitary functions. This should be borne in mind when treating patients in whom fertility is desired.

The age of the patient constitutes no absolute limiting factor, although treatment with estrogens may mask the onset of the climacteric.

Certain liver and endocrine function tests may be affected by exogenous estrogen administration. If test results are abnormal in a patient taking estrogen, they should be repeated after estrogen has been withdrawn for one cycle.

**Adverse Reactions:** The following adverse reactions have been reported associated with short acting estrogen administration:

nausea, vomiting, anorexia  
gastrointestinal symptoms such as abdominal cramps and bloating  
breakthrough bleeding, spotting, unusually heavy withdrawal bleeding (See DOSAGE AND ADMINISTRATION)  
breast tenderness and enlargement  
reactivation of endometriosis  
possible diminution of lactation when given immediately postpartum  
loss of libido and gynecomastia in males  
edema  
aggravation of migraine headaches  
change in body weight (increase, decrease)  
headache  
allergic rash

hepatic cutaneous porphyria becoming manifest  
**Dosage and Administration:** PREMARIN should be administered cyclically (3 weeks of daily estrogen and 1 week off) for all indications except selected cases of carcinoma and prevention of postpartum breast engorgement.

**Menopausal Syndrome**—1.25 mg. daily, cyclically. Adjust dosage upward or downward according to severity of symptoms and response of the patient. For maintenance, adjust dosage to lowest level that will provide effective control.

If the patient has not menstruated within the last two months or more, cyclic administration is started arbitrarily. If the patient is menstruating, cyclic administration is started on day 5 of bleeding. If breakthrough bleeding (bleeding or spotting during estrogen therapy) occurs, increase estrogen dosage as needed to stop bleeding. In the following cycle, employ the dosage level used to stop breakthrough bleeding in the previous cycle. In subsequent cycles, the estrogen dosage is gradually reduced to the lowest level which will maintain the patient symptom-free.

**Postmenopause**—as a protective measure against estrogen deficiency-induced degenerative changes (e.g. osteoporosis, atrophic vaginitis, kraurosis vulvae)—0.3 mg. to 1.25 mg. daily and cyclically. Adjust dosage to lowest effective level.

**Osteoporosis** (to retard progression)—usual dosage 1.25 mg. daily and cyclically.

**Senile Vaginitis, Kraurosis Vulvae with or without Pruritus**—0.3 mg. to 1.25 mg. or more daily, depending upon the tissue response of the individual patient. Administer cyclically.

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No. 866—Each yellow tablet contains 1.25 mg., in bottles of 100 and 1,000. Also in unit dose package of 100.

No. 867—Each red tablet contains 0.625 mg., in bottles of 100 and 1,000.

No. 868—Each green tablet contains 0.3 mg., in bottles of 100 and 1,000.

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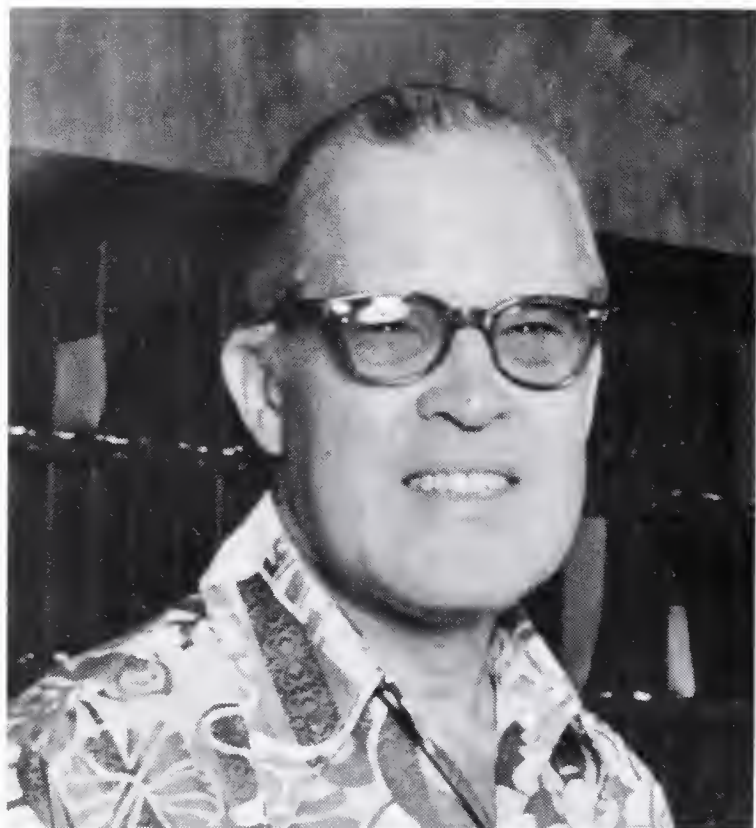
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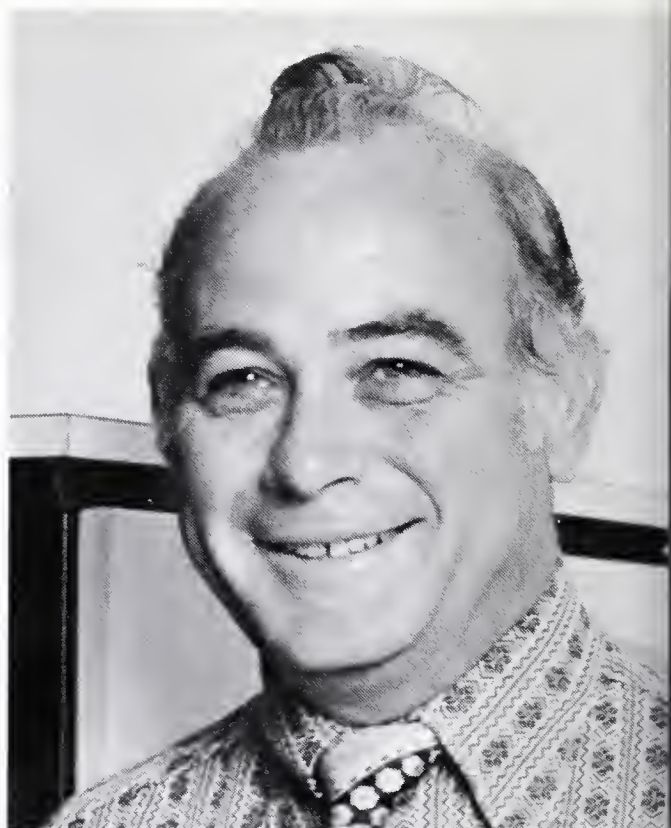
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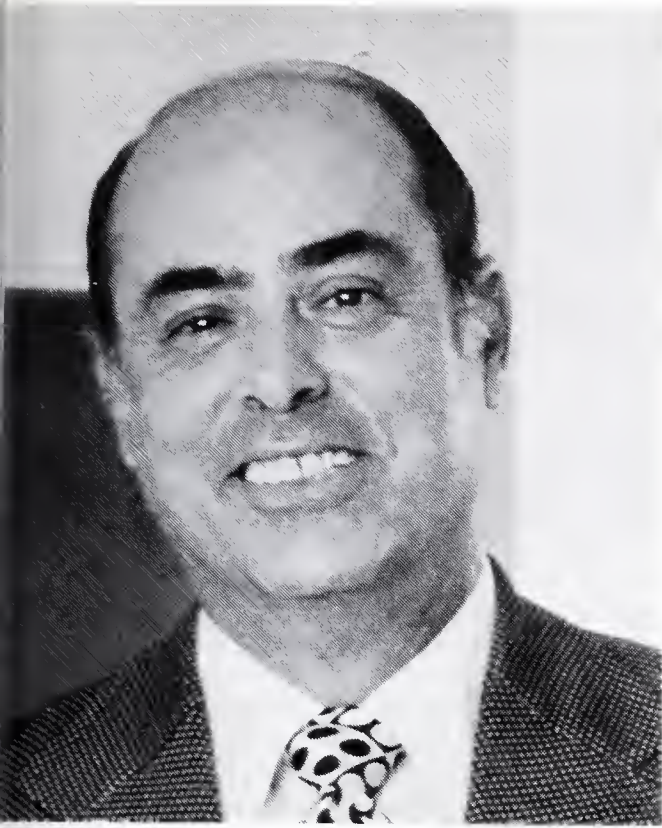
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DON MOORE, *President, Telecheck Hawaii, Honolulu*

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weighed the pros and cons, and I  
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# The Role of the Detail Man

"I may be prejudiced, but I am very much in favor of the detail men I meet. Most of them are knowledgeable about the drugs they promote and can be a great help in acquainting me with new medication."

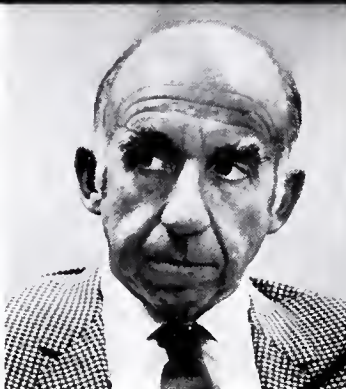
## Family Physician's Perception

I think that most general practitioners in this area feel as I do about the detail man. Over the years I have gotten to know most of the men who visit me regularly and they in turn have become aware of my particular interests and the nature of my practice. They, therefore, limit their discussion as much as possible to the areas of interest to me. Since I usually see the same representative again in future visits, it is in his best interest to supply me with the most honest, factual, as well as up-to-date information about his products.



Dr. Willard Gobbell  
Family Physician  
Encino, California

Dr. Jeremiah Stamler  
Chairman  
Department of Community  
Health and Preventive  
Medicine, and Dingman  
Professor of Cardiology  
Northwestern University  
Medical School



"In the total picture of dealing with health problems in this country there is a potential for detail men to play a meaningful role."

## The Positive Influence

My contact with representatives and salesmen of the pharmaceutical industry is the type of contact that people in a medical center, research people, and academic people have and that's in all likelihood on a somewhat different level from that of the practicing physician.

Let me touch on how I personally perceive the role of the sales representative. These men reach large numbers of health professionals. Thus they could be—and at times actually are—disseminators of useful information. They could consistently serve a real educational function in their ability to discuss their products.

At present they do distribute printed material, brochures and pamphlets—some of it scientifically sound and therefore truly useful—as well as some excellent films produced by the pharmaceutical industry. When they function in this

Opinion  
&  
Dialogue

## He a Source of Information?

Yes, with certain reservations. The average sales representative is a great fund of information about the drug products he is responsible for. He is usually able to answer most questions fully and intelligently. He can also supply reprints of articles that contain a great deal of information. Here, too, I exercise some caution. I usually accept most of the statements and opinions that I find in the papers and studies which come from the larger teaching facilities. I go without saying that a physician should also rely on other sources for his information on pharmacology.

## Training of Sales Representatives

Ideally, a candidate for the position as a sales representative of a pharmaceutical company should be a graduate pharmacist who has a questioning mind. I don't think this is possible in every case, and so it becomes the responsibility

of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as updated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce—information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone

in the health care field, whether they be general practitioners, surgeons or salesmen.

## Value of Sampling

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

capacity they are indeed useful; particularly in the fact that they disseminate broadly based educational material and serve not just as "pushers" of their drugs.

## The Other Side of the Coin

Obviously, the pharmaceutical companies are not producing all this material as a labor of love—they are in the business of selling products for profit. In this regard the ambitious and improperly motivated sales representative can exert a negative influence on the practicing physician, both by presenting a one-sided picture of his product, and by encouraging the practitioner to depend too heavily on drugs for his total therapy. In these ways, the salesman has often distorted objective reality and undermined his potential role as an educator.

## The Industry Responsibility

Since the detail man must be an information resource as well as a representative of his particular pharmaceutical company, he should be carefully selected and

thoroughly trained. That training, perforce, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public—i.e., the patients—will be.

## Physician Responsibility

The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that informa-

tion must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed ethical. I challenge the industry as a whole to live up to that word in its finest sense.

Pharmaceutical  
Manufacturers Association  
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400760

# Paragonimiasis in Hawaii

RONALD P. PEROFF, M.D., *Honolulu*

*Physicians in Hawaii have a special obligation to be aware of exotic diseases because they may encounter them in travellers or residents from other countries.*

## Case Report

A 15-year-old Korean boy, who had emigrated one year earlier, was admitted to Queen's Medical Center in Honolulu for investigation of hemoptysis. Three years previously he had experienced two episodes of coughing up blood following strenuous activity while still living in Korea. Investigations had been carried out and the patient was told his "lungs were normal" but his "heart was weak." For two months he was treated with a series of injections. He remained well until four months prior to admission to Queen's Medical Center, when he coughed up approximately one-half cup of bright red blood.

With the exception of the hemoptysis, he had never been ill. His parents and six other children were all in good health, and there was no history of contact with tuberculosis.

Physical examination was within normal limits. On chest x-ray, an area of increased density was noted in the right superior mediastinal area, suggestive of inflammation or a mass. Tuberculosis was suspected. He had a positive PPD, but gastric washings and cultures were negative.

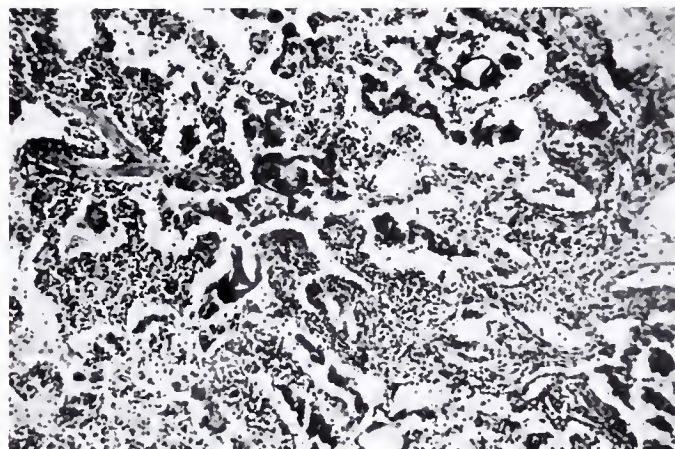
At bronchoscopy there was scant bloody mucus at the lower end of the trachea, but the underlying mucosa was normal. A bronchogram indicated lateral extrinsic deviation of the upper bronchus by a right paratracheal mass. Chest x-rays of his entire family were normal. The pa-

tient was treated with a course of antituberculosis medication.

He was readmitted later for recurrence of hemoptysis. Physical examination was again within normal limits and his chest x-ray remained unchanged. A pulmonary angiogram was suggestive of a large arteriovenous malformation in the right upper mediastinum, possibly arising from the right internal mammary vessel.

At thoracotomy, a firm, well-circumscribed mass was found in the apical portion of the right upper lobe. A right upper lobectomy was performed. Pathological examination revealed inflammatory infiltrate with several parasitic ova characterized by a thick shell and consistent with *Paragonimus westermani* (Figures 1 and 2).

FIG. 1.—Photomicrograph showing alveolar septa widened by infiltration with mononuclears and eosinophilic leukocytes. The alveolar spaces contain aggregates of desquamated septal cells and inflammatory cells and a few ova of *Paragonimus westermani*.

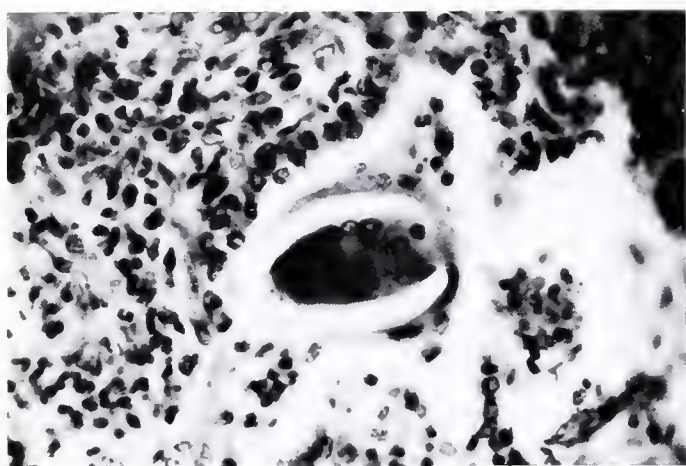


The patient's postoperative course was unremarkable and he has remained well. The final diagnosis was paragonimiasis of the upper lobe of the right lung.

The Honolulu Medical Group, 550 South Beretania Street, Honolulu, Hawaii 96813.  
Accepted for publication March, 1974.



FIG. 2.—Photomicrograph showing an empty shell of an ovum of *Paragonimus westermani* with a foreign body giant cell invading through the operculum in the alveolar space. The alveolar septa are heavily infiltrated by inflammatory cells including eosinophilic leukocytes.



### Discussion

Paragonimiasis<sup>3</sup>, caused by a lung fluke, is endemic in the Far East and Southeast Asia, particularly in Japan, Korea, Taiwan, the Philippines and China. It is acquired by eating raw shell fish, such as crabs and crayfish. The fluke gains entrance to the lung from the gut by first burrowing into the peritoneal cavity, then through the diaphragm, and into the lung. It matures, forms a cystic cavity, and begins to deposit eggs.

Its complex life cycle consists of two intermediate hosts, the first being a snail and the second, crayfish or freshwater crabs. Infection in man is acquired by eating infected freshwater crayfish or crabs inadequately cooked.

An immigrant from an endemic area, with chest symptoms and signs, should be suspected of having paragonimiasis. Most frequent symptoms are slight chronic hemoptysis, slight dyspnea, fever, anorexia and weight loss. An elevated eosinophil count may be the first clue to possible worm infestation. Examination of the sputum reveals ova with characteristic operculated ends. The x-ray picture may be variable.<sup>2</sup> Initially, migratory infiltrates suggest a mobile etiologic factor. This picture may progress to pleural effusions and even pneumothorax. Once the worm matures and a cavity forms, the x-ray picture is one of cystic nodules that seldom change in size or location.

Beland et al<sup>1</sup> described four cases in patients in Quebec, Canada. Three of the patients were from endemic countries, but one had never been out of Quebec.

Tuberculosis, carcinoma, and bronchiectasis are included in the differential diagnosis. The clue to the diagnosis is the ring-shaped lung shadows in the chest x-ray.

Pulmonary complications include pleural effusions and pneumothorax during the stage of migrating larvae. Migrations within lung parenchyma may produce transient infiltrations resembling Loeffler's syndrome. Yang<sup>5</sup> reported that the ova may not appear in the sputum until one year after the initial manifestation. The parasite will eventually die spontaneously, but may remain active for ten years or longer.

Extrapulmonary infestations are uncommon, but cerebral infestations are known and have caused all the fatalities. In Oh's series<sup>6</sup>, intracranial calcification occurred in 30 of 62 cases, 10 of which had a diagnostic soap-bubble appearance.

Paragonimiasis had been reported once previously in Hawaii, in 1949<sup>4</sup>. This case, in a former Korean resident, was reported in a personal communication to Doctor J.E. Alicata. Doctor Alicata points out that there are snails, crayfish, and crabs in the islands which could act as intermediate hosts. Transmission in this state is unlikely because of the rarity of the infection here and the adequate disposal of sewage.

Treatment consists of bithionol (Bitin) or bithionol sulfoxide (Bitin-S) 50 mg/kg in three divided doses per twenty-four hours on alternate days for 10 to 30 days. In Yang's article<sup>5</sup> one course of either drug was effective and no relapse occurred during a three-year follow-up. Bithionol sulfoxide had fewer side effects than biothionol and therefore is the preferred drug. Its effectiveness is evidenced by improvement in the chest x-ray and by disappearance of ova in the sputum and stool. Neither drug has any beneficial effect on cerebral infestations.

### Acknowledgement

The author is grateful to Doctor S.C. Brainard, Department of Cardiovascular and Thoracic Surgery, and to Doctor G.I. Nagao, Department of Pediatrics, Queen's Medical Center, for their permission to publish this case, and for their kind assistance in the editing of this paper. The author is also grateful to Doctor H. Namiki, Department of Pathology, Queen's Medical Center, for his kind assistance in the preparation of the photomicrographs.

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# Emergency Medicine at Diamond Head Crater Festival

R. STANLEY BURNS, M.D.,\* STEVEN E. LERNER, M.S.,\*\*  
and PATRICIA A. SEXTON, B.A.,\*\*\* *Honolulu*

*Diamond Head Crater is the site of a biannual music festival. Begun in January 1969 as a celebration, a promotion for a local radio station and an extension of traditional New Year's Eve activities, the festival has evolved into an anticipated event. Komo Mai Diamond Head, held on July 4, 1974, was the 12th such festival.*

*With increasing numbers of persons attending the crater festival, planners realized that on-site medical care was a necessity.*

*The Waikiki Drug Clinic (WDC) began operation in 1969 as a drug clinic and six months later as a medical clinic also. Because of the expertise gained in dealing with the youth subculture and the staff's experience in treating adverse drug reactions the Clinic was asked to provide on-site emergency medical services for the crater festivals.*

*This paper, describing the Komo Mai Diamond Head, July 4, 1974 Crater Festival, is intended as a guide for health professionals who may be requested to assume medical responsibility for similar events in the future.*

## **Medical Staff— Training and Experience**

The medical staff at the festival, numbering approximately 50, was composed of 6 physicians, 3 nurses, 2 ambulance attendants, and volunteer counselors from the WDC. The group of volunteer physicians had had extensive experience with the youth subculture and emergency medicine. The majority of counselors had prior festival experience. All had worked at the WDC for more than three months or had been

trained in a similar setting and were familiar with the management of drug reactions. Those counselors who had not previously taken cardiopulmonary resuscitation training were trained and received their certification at least two days prior to the festival.

## **On-Site Medical Care Delivery System**

The entire medical staff was provided with T-shirts or arm bands and assigned to one of three elements of the medical care delivery system: the field monitoring team, an auxiliary aid station or the medical tent.

Field teams were composed of two counselors and one security person. Their task was to monitor the crowd, summoning assistance in an emergency. They directed people to the medical tent and carried out first aid measures when finding someone unresponsive on the grounds. They would turn the individual on his side, shade him with clothing, and advise friends to observe respiration and prevent aspiration in the event of vomiting. It was assumed that most of these individuals had ingested alcohol and barbiturates, or both. The monitors were equipped with walkie-talkies and padded tongue depressors.

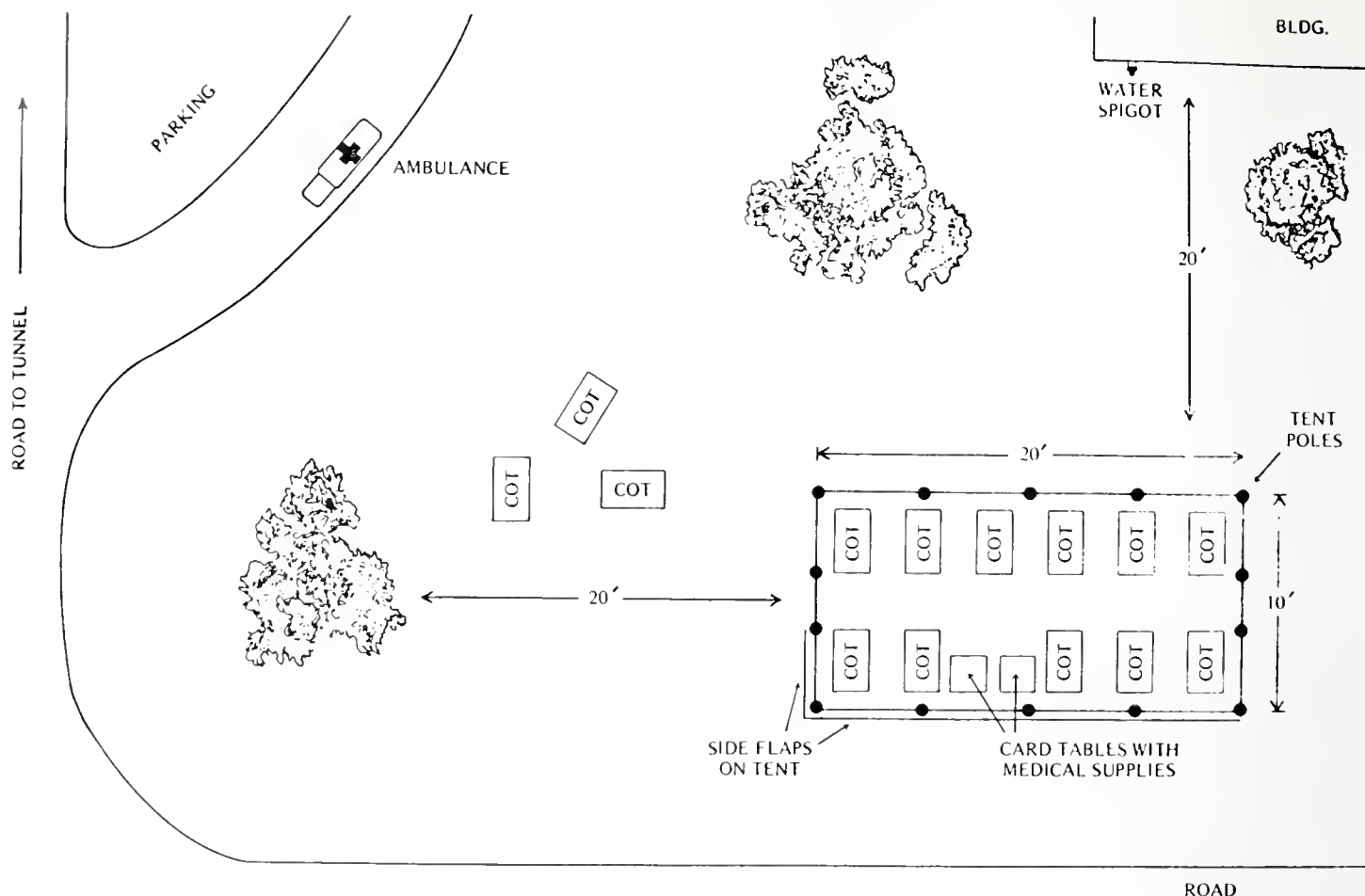
The auxiliary aid station was located next to the main stage and provided minor first aid care. The aid station was staffed by two trained medical volunteers and at times by a nurse.

The medical tent was located near one of the few trees in the crater—ideal for cases of sun exposure (See Figure 1). This site has been utilized for all the festivals, with a large red cross flag raised above the crowd designating the location of the medical tent. The core staff assignment for the medical tent included one physician, two nurses and five counselors.

\*R. Stanley Burns, M.D., Clinical Investigator, San Francisco Polydrug Project, 527 Irving Street, San Francisco, California 94122.  
\*\*Steven E. Lerner, M.S., Research Associate, San Francisco Polydrug Project and Research Associate, Haight-Ashbury Free Medical Clinic.  
\*\*\*Patricia A. Sexton, B.A., Program Director, Waikiki Drug Clinic  
Accepted for publication September, 1974.



FIG. 1 —Layout of Medical Tent and Surrounding Area



### Ambulance and Medical Backup

One fully equipped emergency vehicle and two trained attendants, supplied by Pacific Ambulance, were present at the tent during the entire day. Communication was maintained with the aid station via a field radio and a cleared access road was used for transporting the more serious cases to the medical tent. A telephone near the medical tent was used to summon the city-county ambulance for transfers from the medical tent to local hospital emergency rooms.

### Staff Coverage

The festival was scheduled to run for 12 hours, from 6 AM to 6 PM. Four shifts were defined and the assignments of medical staff to the facilities were set up as described in Table 1.

TABLE 1.—Staff Schedule

TIME	PHYSICIANS	NURSES	COUNSELORS
6-9 A.M.	1	2	7
9-12 NOON	1	2	7
12-3 P.M.	2	3	7
3-6 P.M.	2	3	7

### Spectrum of Cases Seen

Of the 40,000 persons attending the concert, 136 (.3%) presented for medical care. The majority of the patients were men (55%), and white

(77%), and they had a median age of 19. Individuals at the tent facility were listed in the festival medical log and details of management and treatment were recorded. The majority of patients sought care without the prompting of field monitors.

Cases were separated into "minor" and "major" on the basis of requirements for management and treatment; the number of staff and amount of time; close observation with monitoring of vital signs; medications; specialty evaluations (eg, neurological examination) and transfer to a hospital emergency room. The subdivision of cases into "drug use present" and "no drug use present" simply refers to whether a drug was recorded on the medical log as being part of the presenting picture per history or on physical examination.

### Minor Problems

One hundred and twenty-nine (95%) of the presentations for medical care involved minor medical problems and minor trauma. Looking at Table 2, 114 cases involved no drug use. The 15 cases of individuals who presented with a history of drug use or evidenced drug intoxication upon physical examination also represent minor medical problems and minor trauma.

Also represented in Table 2 are 27 cases of the expected minor complications of sun and heat exposure. The mean daytime temperature at the festival was 83 degrees and there were

TABLE 2.—Minor Problems Seen at Festival

NO DRUG USE PRESENT		NUMBER
Environmental stress		
sun exposure		19
temperature related problems (heat exhaustion)		8
Minor Medical Problems		
headache (including migraine)		26
menstruation (napkins, cramps—3)		12
infectious disease (bronchitis, otitis externa, care of infected, old injuries)		5
G.I. complaints		2
other (allergy-pollen, hyperventilation)		2
Minor trauma		
friction blisters		5
abrasions		6
contusions		2
lacerations		
superficial		19
required suturing		4
musculoskeletal injury (sprain ankle)		1
other (cigarette burn, sliver, dog bite)		3
DRUG USE PRESENT		
Agent(s)	Presenting Picture	
alcohol	minor medical problems (nausea, vomiting, heat exhaustion, requiring rest)	5
	minor trauma (abrasion, contusion, laceration)	4
	other	1
alcohol & marijuana	minor medical problem (nausea)	1
	minor trauma (contusion, laceration)	2
barbiturates & alcohol	minor medical problem (headache, requiring rest, vomiting, unable to get up)	2

virtually no shaded areas available in the crater. Eight of 23 lacerations were localized to the toes or feet, two required suturing. This was felt to reflect the presence of sharp objects like cans on the grounds. Seven of the lacerations seen, three requiring suturing, were of the face and head. All seven resulted from physical altercations.

Major Problems

Seven cases could be considered of major proportion, reflecting the medical management indicated (See Table 3). Three cases represent major trauma without drug use and four cases include drug use as part of the presenting picture. Case Number 6 primarily represents major trauma secondary to a fight, with alcohol and marijuana use as part of the history but of questionable relatedness. Looking just at the four cases of major trauma, a history of drug use was present only in Case 6. Three of the cases resulted from a single altercation involving several individuals. The fourth represents an accident. The three major medical problems seen during the festival were exclusively drug related.

Two individuals with a history of recent ingestion of LSD presented with bad trips during acute intoxication. Management included diazepam (Valium), close observation, and a "talk-down" technique. Several staff members were involved in their care over a period of 2 to 6 hours. Both individuals were released to home. A third individual was noted to have taken secobarbital (Seconal®) by mouth and inhaled paint vapors from an aerosol can. He presented with combative behavior and acute intoxication. The time of admission to the medical tent was between 7 and 8 PM and he was transferred directly to a hospital emergency room.

Transfer to Hospital Emergency Rooms

Four cases were transferred to local hospital emergency rooms. Three represented major trauma resulting from a single altercation and the other case, Number 7 was a drug related medical problem. Only Case 7 involved hospitalization, but the individual left against medical advice two days after admission.

Street Drugs Available—"Burgundy's"

A sample burgundy-colored capsule containing white powder was brought into the WDC the day prior to the festival. Clients had reported on the availability of such a street preparation and forewarned the staff that large quantities would be brought into the crater. On analysis the sample "burgundy" proved to contain secobarbital. The capsules were reportedly taken orally in numbers of approximately 8 to 10 over the period of a day. A history of use of "downs" was assumed to represent secobarbital ingestion. An important feature of the effective medical management of adverse drug reactions is the availability of information from the analysis of "street drug" samples. It has been suggested by Dr. David E. Smith that on-site drug analysis be developed for events which attract large numbers of young people and where drug use is the normal mode of behavior.

Drug Related Problems

Eleven cases (61%) with drug use as part of the presenting picture could be considered to be problems directly related to recent drug use. Minor medical problems felt to be directly related to the use of drugs (8 cases) included headache, light-headedness, nausea with vomiting, the inability to stand or walk, the need for rest, and complaints of heat exhaustion. The major problems resulting from drug use included the two cases of acute intoxication with LSD accompanied by bad trips and the one case of intoxication with secobarbital and aerosol paint presenting as combative behavior.



TABLE 3.—Major Problems Seen at Festival

CASE NUMBER		PRESENTATION	MANAGEMENT/ DISPOSITION
<i>NO DRUG USE PRESENT</i>			
1		<i>Major trauma:</i> 21 year old Caucasian male, fell down mountain, unconscious for seconds, abrasion left forearm. Rule out: closed head injury.	Neurological examination, released to home.
2		<i>Major trauma:</i> 23 year old Caucasian female, in fight, hit in face, laceration below left eye, corneal laceration, bloody nose. Rule out: orbital fracture.	Neurological examination, to hospital per ambulance.
3		<i>Major trauma:</i> 30 year old black male, in fight, laceration right forehead, back pain hit with lead pipe. Rule out: thoracic injury.	To hospital per ambulance.
<i>DRUG USE PRESENT Agent(s)</i>			
4	LSD	<i>Major medical problem and minor trauma:</i> 18 year old Caucasian male, "overdose," small laceration of back of head.	Diazepam (Valium <sup>®</sup> ) 2mg I.V. & 40mg IM in first 1 1/2 hours, observations q 15-30 minute vital signs—5 hours, released to home.
5	LSD	<i>Major medical problem and minor trauma:</i> 19 year old Hawaiian male, "flipping out on dope" laceration from being struck on head.	Diazepam (Valium <sup>®</sup> ) 10mg, bleeding stopped, observation, released to home.
6	ETOH & marijuana	<i>Major trauma:</i> 22 year old Caucasian male, in fight, bleeding from mouth and severely from nose, pain in side. Rule out: nasal fx/rib fx.	Vital signs, nasal packing plus epinephrine. To hospital per ambulance.
7	Barbiturates & paint	<i>Major medical problem:</i> 19 year old Portuguese male, "overdose on reds & paint," combative.	To hospital per ambulance

TABLE 4.—Supplies, Equipment and Medication at Crater Festival

## EMERGENCY BOX:

## SUPPLIES/EQUIPMENT

4 x 4 in. Gauze  
Ace Bandages  
Laryngoscope  
Endotracheal Tubes  
Ambu Bag

## MEDICATION

Diphenhydramine HCL (Benadryl<sup>®</sup>) IM  
Diazepam (Valium<sup>®</sup>) IM  
Naloxone HCL (Narcan<sup>®</sup>)  
Adrenalin  
Sodium Bicarbonate  
Dextrose 50%

## MEDICAL TENT:

## SUPPLIES/EQUIPMENT

Stethoscopes  
Blood Pressure Cuffs  
Oto- Ophthalmo-Scopes  
Thermometers  
Oral Airways  
I.V. Tubing  
Tongue Blades—Padded/Regular  
Tourniquets  
Ace Bandages  
Safety Pins  
Sheets—Splints/Cold Packs  
Finger Splints  
Hemostats  
Scissors  
Forceps  
Needle Holders  
Suture Sets  
Scapel  
No. 11 Blades  
Gloves  
Syringes—Needles  
Emesis Basins

Tape—1/2 & 1 in.  
Roller Gauze—3 in.  
Band Aids  
Cotton Applicators  
3 x 3 in. Gauze  
4 x 4 in. Gauze  
Alcohol Swabs  
Eye Paps  
Tubular Gauze—Splints  
Kling  
Packing Gauze  
Paper Towels  
Paper Cups  
Pens  
Script Pads  
Flashlights  
Medical Log  
Card Tables  
Red Cross Arm Bands  
Knife  
Kotex/Tampax  
Cooler—Ice

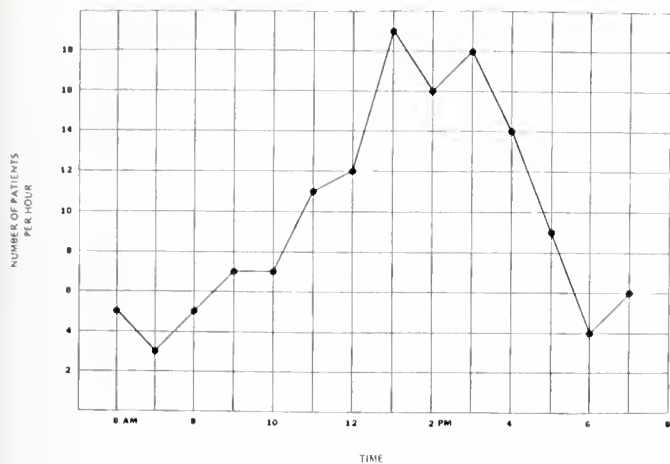
## MEDICATION

Diphenhydramine HCL (Benadryl<sup>®</sup>) P.O.  
Aspirin  
Acetaminophene (Tylenol<sup>®</sup>)  
Salt Tablets & Sugar Tablets  
Tetanus Toxoid  
Ipecac  
Gelasil  
IV—D5W  
Alcohol  
Peroxide  
Zephiran  
Betadine  
Aloe  
Sunscreen  
Blistex  
Xylocaine (2% W, 1% W/O)  
Eye Wash  
Fluorescein Eye Strips  
Tetracycline Ophthalmic Drops  
Bacitracin  
Nitrofurazone (Furacin<sup>®</sup>)/Vaseline Gauze

### Temporal Pattern of Cases

Figure 2 shows the case load by hour of day.

FIG. 2.—Case Load by Hour of Day



### Medical Supplies

Supplies, equipment and medication available for the medical tent and emergency box are listed in Table 4.

### Public Health Concerns and Security

Crater celebrations are well established occurrences with regulations on sanitary facilities, food distribution, storage, etc. policed by appropriate state agencies. Security is provided by a volunteer group organized specifically for the festival, identifiable by their T-shirts and lack of weapons. Walkie-talkies are carried for communication.

### Acknowledgments

We are extremely grateful to the volunteers and staff of the Waikiki Drug Clinic. Without their assistance this paper would not have been possible. We are particularly indebted to Liz Nelson for coordinating medical services; Polly Blackburn for graphics; Lauren Linda, Betsy Reid and Don Wesson, M.D. for editorial comments.

Address reprint request to: S. Lerner, 527 Irving Street, San Francisco, CA 94122

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# Non-Automated Multiphasic Health Examination Using Existing Facilities

B. R. MEHTA, M.D., *Honolulu*

*The value of the periodic health examination, though questioned by some physicians, has been accepted by a majority as a way of diagnosing some diseases at an early stage and thus hopefully preventing some of the morbidity associated with them. To meet this demand, various new modes of automated and non-automated testing have been devised. Such testing can be performed economically without any significant initial capital expenditure, by using the existing facilities and equipment which are available to any hospital or large clinic. At the Kaiser Medical Center in Honolulu, such a program has existed since 1968, utilizing an outpatient clinic floor, hospital x-ray department, laboratory and EKG equipment in evening hours. In collaboration with Dr. Roshad M. Nabil, from the University of Hawaii School of Medicine, a sample survey of some of the findings was made.*

The worth of the multiphasic screening examination has yet to be accepted by all physicians and other health care delivery people. However, public needs create certain demands which determine priorities in such matters. Technology has risen to meet these demands by improvising automated systems for such testing. Initial costs for setting up such programs and concurrent costs of these programs have deterred many physicians and other health delivery people.

The Preventive Medical Institute Strang Clinic charges \$35 to \$50 for each examination. The cost analysis of multiphasic testing was reported

by Collen et al<sup>1</sup> at \$21.32 in 1969. However, now these costs are probably much higher. The cost per participant at the Tulane Health Maintenance Project<sup>2</sup> was reported as high as \$97.72 for women and \$77.84 for each man participating.

To meet the demand for health evaluation of members of Kaiser Foundation Health Plan, we started our multiphasic program in 1968. It was held once a week in the evening between the hours of 5 and 10 p.m. These hours were chosen because at these times the clinic floors, the X-ray Department, and the parking spaces are all freely available. We have been using the doctors' examining rooms, the audiogram of the E.N.T. Department, and the tonometry and the vision testing facilities of the Ophthalmology Department. The EKG machines, which are usually idle at these hours and the X-ray Department, are similarly utilized. In 1970, to meet increasing load, we opened an additional evening; now this testing is done on Tuesday and Thursday evenings. Table 1 shows the number of people who had gone through this testing up to December 1972.

The participant makes an appointment through our regular appointment center. He receives in the mail a rough outline of what he will go through, a history questionnaire, and recently, instructions for performance of the two-hour post-prandial blood sugar test. When he arrives at the medical center, he goes to the X-ray Department, which is on the first floor. After that, he goes to the fifth floor, where he passes through various stations for various tests as shown in Figure 1.

Since May 1970, a clinical evaluation by a

Department of Medicine, Kaiser Medical Center, Honolulu, Hawaii 96815.

Presented at the regional meeting of the American College of Physicians held at Honolulu, Hawaii, February, 1973.

Accepted for publication February, 1973.

Hawaii Permanente Medical Group  
Kaiser Medical Center  
MULTIPHASIC EXAMINATION  
-ADULT-

1. VITAL SIGNS: \_\_\_\_\_ Height \_\_\_\_\_ Pulse \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_  
Age: \_\_\_\_\_ Weight \_\_\_\_\_ Blood Pressure \_\_\_\_\_

2. GLUCOSE DRINK: Time \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_  
Time Last Meal: \_\_\_\_\_

3. ELECTROCARDIOGRAM: Normal \_\_\_\_\_ Abnormal \_\_\_\_\_  
\_\_\_\_\_ Past history cardiac disease \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_  
\_\_\_\_\_ Over 40 \_\_\_\_\_  
\_\_\_\_\_ BP over 140/90 \_\_\_\_\_  
\_\_\_\_\_ Irregular pulse \_\_\_\_\_

4. IMMUNIZATION: \_\_\_\_\_ DT \_\_\_\_\_ Smallpox \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

5. AUDIOGRAM: \_\_\_\_\_ Normal Limits \_\_\_\_\_ Referrable \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

6. VISUAL ACUITY: Rt \_\_\_\_\_ Left \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

7. TENSION: 7.5 gm. Rt \_\_\_\_\_ Left \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

8. RESPIRATORY FLOW: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

9. X-RAY:  
Normal \_\_\_\_\_  
Abnormal \_\_\_\_\_

10. LABORATORY:

UA _____	CBC _____	GEN. CHEM. _____
Sp. Gr. 1.0 _____	HgB _____	Blood Sugar 2" PC _____
Prot. _____ Sugar _____	HCT _____	Urea Nitrogen _____
WBC _____	MCHC _____	Uric Acid _____
RBC _____	WBC _____	Cholesterol _____
Ep. Cells _____		
Bacteria _____		
Crystals _____		
Mucus threads _____		
Casts _____		
Others _____		

Table 1 shows the number of people who have gone through this program. Table 2 shows the total number of the personnel required to run this program. One trained nurse and two part-time physicians perform the clinical part of the examination. Roughly 40 to 50 physicals are done each evening.

MULTIPHASIC STARTED ON  
1-18/68

TOTAL CENSUS FOR 1968 TILL	
DEC. 31, 1969	3,450
TOTAL CENSUS FOR 1970	4,484 (Twice A Week From 10-13/70)
P.E. Started on 5-28/70	1,320
TOTAL CENSUS FOR 1971	6,924
P.E.	3,788
TOTAL CENSUS FOR 1972	6,657
P.E.	4,701
TOTAL CENSUS SINCE 1-18/68	
TILL 12/31/72	21,515
TOTAL P.E. CENSUS SINCE	
5/28/70	9,809

STAFF	1 Charge Nurse
	1 Nurse Practitioner
	3 Staff R.N.'s
	2 Receptionist Clerks
	2 E.K.G. Technicians
	8 Aides
TOTAL	17 Ancillary Personnel
	2 Physicians—Part-time

TABLE 3.—Cost Analysis in the year 1972

1972 COSTS	
WAGES	\$15,370.00
NON-PAYROLL COSTS	38,188.00
X-RAY COSTS	33,884.00
LABORATORY COSTS	6,657.00
	<hr/>
Total Cost	94,099.00
APPROXIMATE COST PER PARTICIPANT	14.50
LABORATORY COST PER PARTICIPANT	1.00
X-RAY COST PER PARTICIPANT	5.09

In collaboration with Dr. Rashad M. Nabil, from the University of Hawaii School of Medicine, we have undertaken a survey of the abnormalities discovered, particularly in relation to racial background. Table 4 shows the number of people studied according to their sex and ethnic origin. Some of the commonly-found diseases already known are presented in Table 5. History of diabetes was recorded in 10% of the Japanese men compared to an overall incidence of 5%. Forty-four percent of the men were smokers compared to 33% women. History of drinking was recorded in 79% of Caucasian men and in only 22% of Japanese women. Though 40% of the women and only 23% of the men were taking some medication, the difference is probably due to the use of contraceptives in women. Tables 6 and 7 present incidence of some other abnormalities. Incidence of diastolic hypertension was significantly higher in the Japanese men.

	TOTAL NO. STUDIED	MEN	WOMEN
TOTAL			
ALL GROUPS	829	392	437
JAPANESE	182	88	94
CAUCASIAN	380	190	190
OTHER	267	114	153

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TABLE 5.—*Health Survey Questionnaire Review and Known Abnormalities*

KNOWN DIAGNOSIS BY HISTORY	OVERALL INCIDENCE			JAPANESE		CAUCASIAN		OTHER	
	TOTAL	W	M	W	M	W	M	W	M
High Blood Pressure	13.30%	15.42%	11.68%	5.3%	19.3%	7.3%	13.6%	21.3%	15.4%
Asthma	8.4 %	7.2 %	9.9 %	6.4%	10.2%	6.3%	9.4%	8.9%	10.3%
Stomach of Duodenal Ulcers	10.3 %	7.7 %	13.6 %	4.3%	14.7%	10.0%	13.0%	6.8%	13.4%
Diabetes	5.0 %	4.4 %	5.6 %	3.2%	10.2%	5.7%	3.6%	3.4%	6.1%
Cigarette Smoking	38.4 %	44.1 %	33.1 %	32.2%	42.0%	36.8%	41.3%	28.9%	50.9%
Alcohol Consumption	59.3 %	48.6 %	71.1 %	22.5%	64.7%	66.8%	79.0%	41.3%	62.2%
On Medication	32.2 %	40.4 %	23.1 %	25.8%	17.0%	49.4%	27.2%	37.9%	20.7%

TABLE 6.—*Incidence of Significant Abnormalities Discovered During Multiphasic Health Examination*

ABNORMALITIES	OVERALL INCIDENCE			JAPANESE		CAUCASIAN		OTHER	
	TOTAL	F	M	F	M	F	M	F	M
Blood Pressure Over 150 Systolic	3.74%	3.4%	4.08%	3.1%	2.2%	2.1%	3.6%	5.2%	6.1%
Blood Pressure Over 90 Diastolic	9.78%	7.1%	12.8 %	6.3%	11.4%	5.2%	7.8%	9.8%	2.9%
E.K.G. Abnormal	14.5 %	14.6%	14.3 %	8.5%	11.4%	15.2%	15.7%	17.6%	14.0%
X-Ray Abnormal	1.9 %	0.9%	3.0 %	0.0%	5.7%	0.5%	2.0%	1.9%	2.6%
Blood Sugar 1 Hr. P.P. Over 190	22.3 %	23.1%	21.4 %	25.5%	24.1%	20.0%	20.4%	25.4%	21.0%
B.V.N. Over 22	6.7 %	4.8%	8.9 %	1.0%	10.3%	6.8%	6.8%	4.5%	11.4%
Uric Acid Over 7 for Male Over 6 for Female	14.7 %	8.7%	18.9 %	4.3%	18.3%	6.8%	16.7%	13.7%	22.8%
Cholesterol > 260	2.4 %	2.5%	2.3 %	1.0%	2.2%	3.1%	2.0%	2.6%	2.6%

TABLE 7.—*Incidence of Significant Abnormalities, (Cont'd)*

ABNORMALITIES	OVERALL INCIDENCE			JAPANESE		CAUCASIANS		OTHER	
	TOTAL	F	M	F	M	F	M	F	M
Hemoglobin Under 14 GM for Under 12 GM for	9.6 %	7.1 %	12.5 %	7.4%	12.6%	3.6%	10.9%	11.1%	14.9%
W.B.C. Over 10,000	3.7 %	3.2 %	4.3 %	0.0%	6.8%	5.2%	3.6%	2.6%	4.1%
W.B.C. Over 5,000	6.1 %	7.1 %	5.1 %	7.4%	2.2%	7.3%	6.8%	6.5%	5.1%
Urine-Protein	0.85%	0.46%	1.27%	1.0%	2.2%	0.0%	1.0%	0.6%	0.8%
Urine-Glucose	0.5 %	0.23%	0.76%	0.0%	1.1%	0.5%	0.0%	0.0%	1.7%
Urine-W.B.C. > 8-10 Female 3-4 Male	7.0 %	7.42%	6.6 %	5.3%	13.7%	8.4%	5.2%	7.4%	3.5%
Urine-R.B.C. 8-10 Female Any in Male	3.6 %	2.32%	5.1 %	7.4%	5.7%	0.0%	6.2%	2.0%	2.6%
Urine—Casts	0.6 %	0.23%	1.02%	0.0%	0.0%	0.0%	0.5%	0.6%	2.6%

Twice as many men have B.U.N. over 22 than do women. Almost 19% of the men had hyperuricemia, compared to 9% of the women. The incidence of hypercholesterolemia was rather low in both sexes and all races.

Anemia, defined by hemoglobin less than 14 gm in men and 12 gm in women, was found in 12% Japanese men and only in 3% Caucasian men. This may point up certain fallacies in ac-

cepting norms based on one racial group. In contrast to high incidence of elevated B.U.N., incidence of proteinuria was quite low. Similarly, the incidence of glycosurea was extremely low, in contrast to the hyperglycemia. Incidence of pyuria was only slightly higher in women. This is probably due to the different standard used; 8 to 10 W.B.C. in women compared to 3 to 4 in men. Similarly, the incidence of hematuria.

The yield of multiphasic screening was reviewed by Bates and Yellin<sup>3</sup>. They commented that the number of abnormalities discovered appear large, suggesting great potential for preventive medicine. Similarly, others have commented on the great potential of these screening tests,<sup>4,5</sup>. However, actual benefits to patients have not been determined. In the study presented by Bates<sup>3</sup>, the benefits were small. The major cause of this was physicians' behavior, in that many abnormalities were not followed or were completely ignored.

The importance of clinical, as well as laboratory, screening was stressed by Bates et al in another article<sup>6</sup>. They reported that 17% abnormalities were recognized by both methods, while 26% were recognized by clinical evaluation and 57% by multiphasic testing.

**Summary**

The value of multiphasic screening has not been conclusively established as a preventive

health measure. Similarly, the controversy whether the annual periodic health checkups are worthwhile still persists. There has been, however, a strong private and public demand for such services. To meet this tremendous demand, multiphasic health testing provides an avenue, whether automated or otherwise.

It is possible to set up a multiphasic health screening program at minimum or no initial cost by utilizing already existing facilities in any large clinic or hospital. This service can be provided continuously at a reasonable cost. Data presented show some differences related to sex and race. We hope to continue this study and obtain a larger sample to make it more meaningful.

**Acknowledgement**

The funds for this study were provided by Kaiser Medical Center, Honolulu, Hawaii, Research Grant provided by Mr. and Mrs. Harry Wong, James and Dorothy Leong, and Mr. Tony and Leona DeMauro.

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## Well Done, Henry!

The HAWAII MEDICAL JOURNAL has a man of the hour—indeed, its own man of the year—Henry Yokoyama, our news editor.

Henry is also our “salvador”—because without his hard work, planning and fast talking, the Journal might have died, come 1975.

In these days of rising prices and postal rates, and of general ennui, there have been those amongst us who felt that Hawaii and its Medical Association might be just as well off—maybe better—without the HAWAII MEDICAL JOURNAL.

We find this, though not surprising, still a bit heart rending and soul stirring.

Henry's soul was stirred to the “sticking point”, and he was able to draft a format for an all-purpose monthly HMJ that was acceptable to the HMA House of Delegates.

So, the Journal has a new lease, and we owe it largely to you, Henry! Mahalo!

DORIS R. JASINSKI, M.D.

## You Deserve It, Fred!

Every year for the past several, the pharmaceutical A.H. Robins Company has made an award—based on his colleagues' acclamation—to The Physician of the Year in Hawaii.

Our current recipient has devoted his years to treating Hawaii's people—on Lanai, on Molo-kai, and, for the past nearly one score years, in Kaneohe town and environs. In his leisure, he has helped his wife raise many sons and a daughter, and has done the scut work of medicine—spending long hours, days, months and

years, in committee rooms and on boards, for the County Medical Society, the Hawaii Medical Association, and for the Hawaii Academy of Family Physicians.

Fred's claim to the accolades of his peers is not some single bright and shining hour, but the long haul. And for his continuing and untiring devotion to his several community interests, we salute you, Fred Reppun!

DORIS R. JASINSKI, M.D.

# Hawaii Medical Association

# HAWAII MEDICAL JOURNAL

**COUNCIL MEETING**  
Friday, June 7, 1974, 5:30 P.M.  
Mabel Smyth Lanai

## CALL TO ORDER

The meeting was called to order by President Thomas P. Frissell. Present were Drs. Winfried Y. Lee, William E. Iaconetti, R. Varian Sloan, Grover H. Batten, Herbert Y.H. Chinn, George Goto, J.I.F. Reppun, Albert C.K. Chinn-Hoon, William W.L. Dang, Ann B. Catts, Henry B. Oyama, Patrick J. Walsh, Sakae Uehara, Verne Adams, Peter Kim, William Moore, J. Mark B. Sowers, Eugene Rames, DeWitt Smith for James Matayoshi, and Calvin C.J. Sia, Fred L. Gilbert, Jr., Rowlin Lichter and Mr. V. Thomas Rice.

## MINUTES

The minutes of the April 5, 1974 meeting were approved as circulated.

## SECRETARY

The report of the Secretary was approved.

## TREASURER

The April financial report was presented for review. It was reported that Journal income is presently behind what was projected and that a complete evaluation of the Journal is underway. The Finance Committee recommends: (1) that they be permitted to convert funds presently in savings and loan companies to other financial institutions which yield a higher rate of interest and that the amount so converted be left to the discretion of the Finance Committee, and (2) that the Finance Committee also be permitted as its discretion to purchase short-term commercial paper or Treasury Bonds as indicated in order to strengthen the HMA's financial position.

### ACTION:

It was voted to file the April financial report subject to audit. It was voted to accept recommendations 1 and 2 of the Finance Committee.

### ACTION:

It was voted to file the report of the Treasurer subject to audit. A mid-year report on the Common Fund Payroll Adjustments was presented for Council review.

## REPORT OF THE COMMITTEES AND COMMISSIONS

**A. Medical Education and Peer Review:** Dr. Lee reported that a letter was received from Dr. Rutledge Howard indicating that HMA's application to become the accreditation organization for Hawaii's Physician's Recognition Award Program will be reviewed during June.

**B. PSRO:** The Hawaii Foundation for Medical Care has submitted a six-month planning grant request for the Hawaii PSRO. The Foundation Board plans to again solicit members for the PSRO and proceed with the election of the PSRO Board.

It was noted that an inquiry had been received from Senator Clifford Hansen asking for HMA views on PSRO and that copies of various editorials and previous correspondence on this subject was forwarded to him.

**C. Medical Services:** The Fee Survey Committee requested funds to send a committee representative to meet with the California Fee Survey Committee to discuss mutual problems concerning the issuance of addendum to the Relative Value Studies. It was suggested that the needed infor-

mation might be obtained by the HMA staff while they are on the mainland for the AMA meeting.

### ACTION:

It was voted to give the Executive Committee the prerogative of sending a representative to California.

**D. New Site:** A new HMA-HCMS ad hoc committee has been formed to explore the development of a multi-purpose building for HMA HCMS headquarters. The Executive Committee has already asked that all avenues regarding this development be explored. Dr. Grover Batten has been appointed as the HMA representative on the committee.

### ACTION:

It was voted to instruct HMA's representative to continue the investigation of a new site for HMA.

**E. Internal Affairs:** Preliminary programs for the HMA Annual Meeting, to be held at the Ilikai Hotel October 29-November 1, have been printed for distribution at the AMA meeting. The 1975 AMA Clinical Session in Hawaii will also be promoted at the AMA meeting.

**F. Public Health:** The School Health Committee continues to discuss immunization of school children. The enactment of legislation requiring a physical examination and completion of all immunizations prior to entrance to school (Act 51, 1974) as well as continuation of the School Health program, should further broaden the statewide immunization program. It was also reported that there are plans for health education programs for parents of pre-school children and that funds have been included in the budget for outreach workers for the Medicaid program. (Title IV).

**G. Interprofessional and Public Relations:** The Public Affairs Committee recommendations relating to physician listings in the telephone directory were not approved.

**H. Ad Hoc Committee on HMA/HMSA DDS:** The Executive Committee reported that the Department of Social Services has not responded to the proposal presented to them and recommended therefore that this committee be disbanded.

### ACTION:

It was voted to accept the recommendation.

**I. Cancer Research Center:** A letter has been received outlining the functions of the executive committee of the Cancer Research Center. HMA's appointees to the Executive Committee will be: Drs. Herbert Y.H. Chinn, Andrew Morgan, Thomas K.L. Lau, and Henry Oyama.

### ACTION:

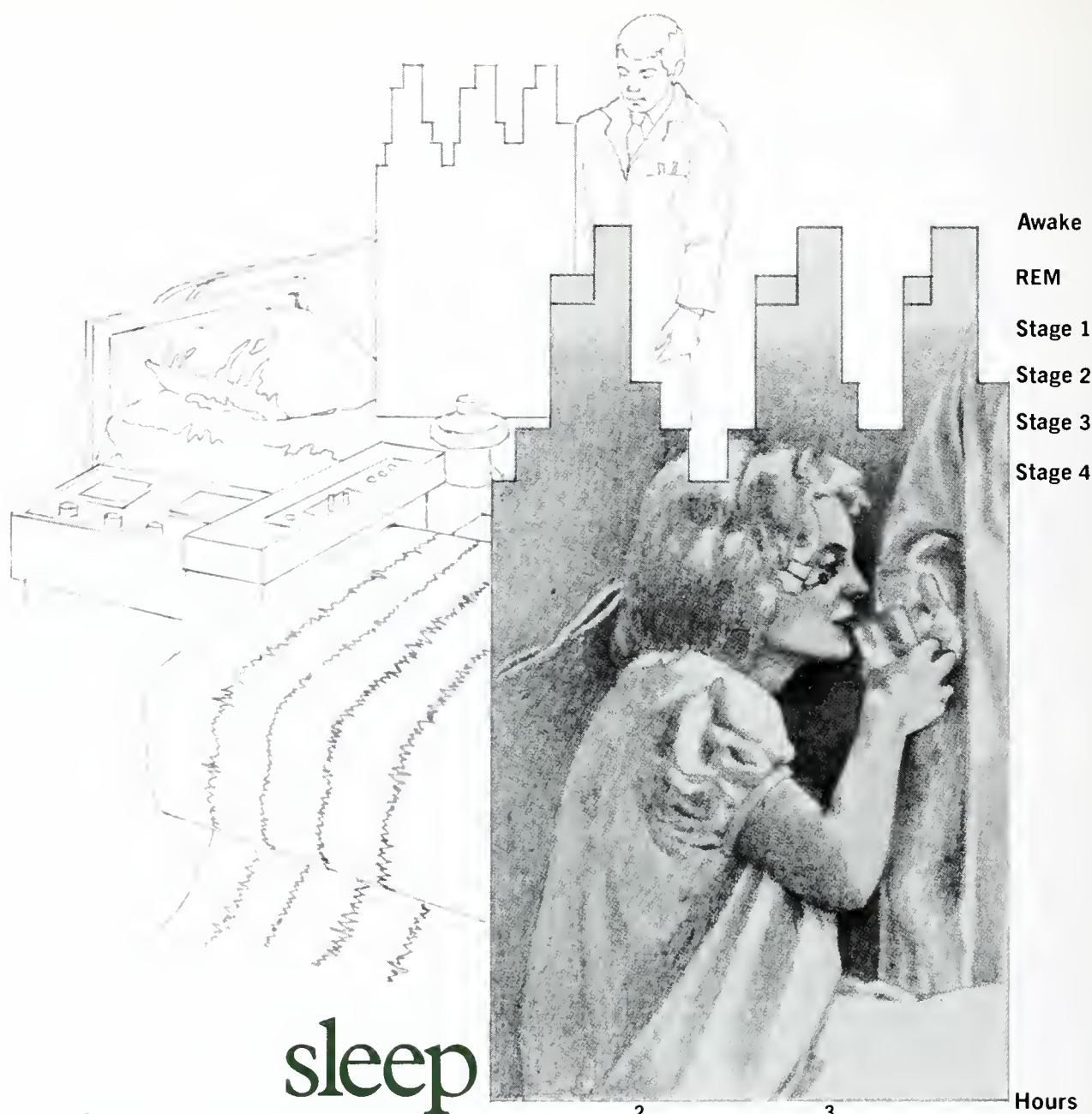
It was voted to approve the appointments to the Executive Committee of the Cancer Research Center.

**J. EMS:** Grant requests to continue the EMS program have been submitted to Washington. The grant for Oahu was submitted by the City and County of Honolulu and a planning and implementation grant for the neighbor islands was submitted by the Department of Health. A supplemental grant for training emergency medical technicians on neighbor islands was also submitted.

**K. Health Services:** Maui County Medical Society referred a letter from the Molokai Community Action Council for suggestions regarding ways in which better medical services might be provided for the people of Molokai. The executive committee discussed this matter and voted to send Drs. J.I.F. Reppun and William E. Iaconetti to Molokai at their earliest convenience to investigate this matter with Molokai physicians and representatives of the community action group.

*continued page 350*



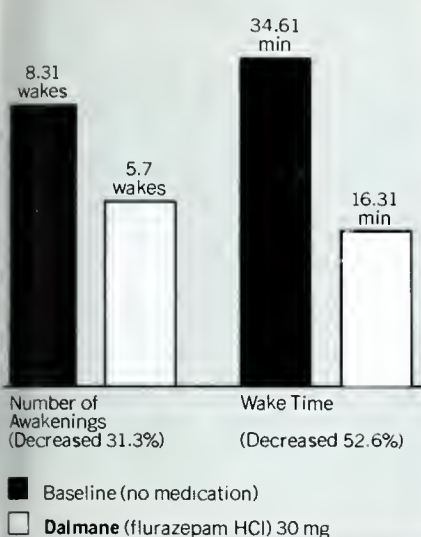


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Eight patients received no medication on nights 1-4; Dalmane (flurazepam HCl) or placebo on nights 5-9; crossover capsule, nights 10-14; and no medication, nights 15-17. While placebo had no significant effect on sleep maintenance, Dalmane reduced nighttime awakenings by 55.1% when given on nights 5-9, 43.7% on nights 10-14. When four control subjects received placebo on the 10 "drug" nights, awakenings *increased* 11.5% over baseline.<sup>1</sup>

Average Number of Awakenings and Minutes of Wake Time (4 Studies, 16 Subjects)<sup>2-5</sup>



## confirmed by clinical studies in four geographically separated sleep research laboratories<sup>2-5</sup>

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Dalmane is generally well tolerated; morning "hang-over" has been relatively infrequent. While dizziness, drowsiness, lightheadedness and the like have been noted most often, particularly in the elderly and debilitated, physicians should be aware of the possibility of more serious reactions, as noted in the Complete Product Information.

Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, summary of which follows:

**Indications:** Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

**Contraindications:** Known hypersensitivity to flurazepam HCl.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

**Precautions:** In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

**Adverse Reactions:** Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, e.g., excitement, stimulation and hyperactivity, have also been reported in rare instances.

**Dosage:** Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

**Supplied:** Capsules containing 15 mg or 30 mg flurazepam HCl.

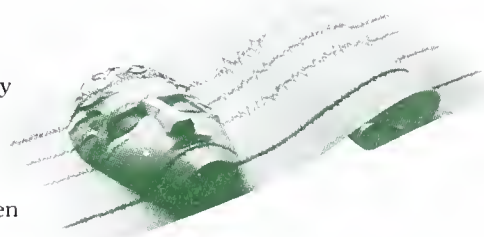
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## *New Members*

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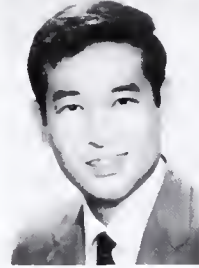
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Kailua, Hawaii 96734  
INTERNAL MEDICINE



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4100 Kalaniana'ole Highway  
Honolulu, Hawaii 96821  
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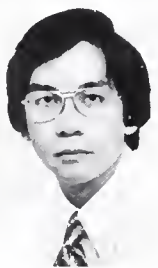
**Jared G. Sugihara, M.D.**  
888 South King Street  
Honolulu, Hawaii 96813  
INTERNAL MEDICINE



**Alan B. Hawk, M.D.**  
888 South King Street  
Honolulu, Hawaii 96813  
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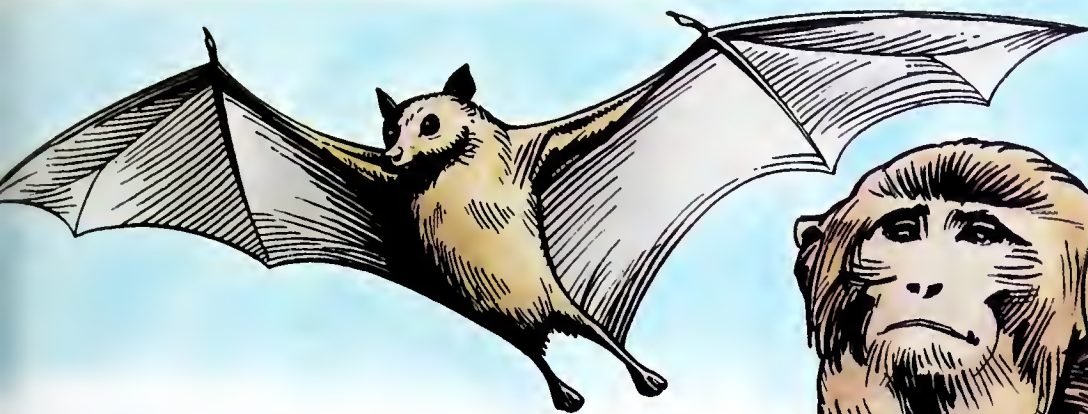
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Honolulu, Hawaii 96813  
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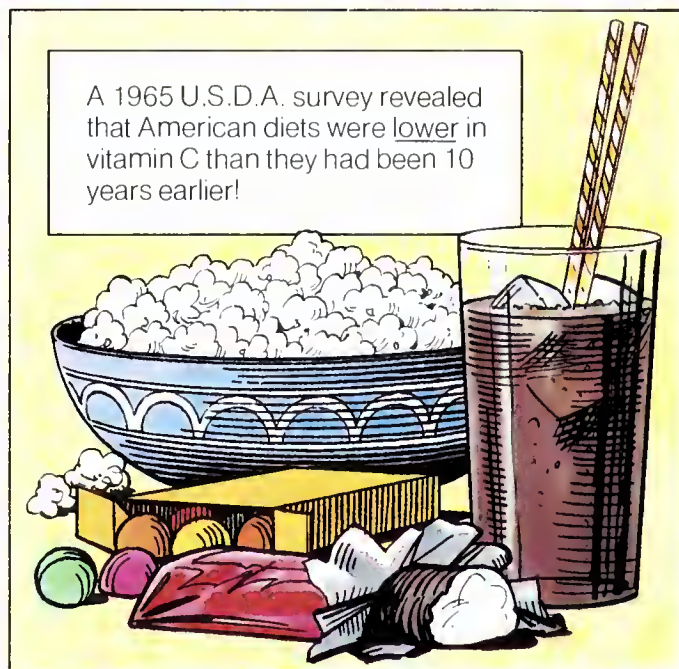
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phenobarbital	( $\frac{1}{4}$ gr.) 16.2 mg	( $\frac{1}{2}$ gr.) 32.4 mg.	( $\frac{3}{4}$ gr.) 48.6 mg.
(warning: may be habit forming)			

**Brief summary.** Adverse Reactions: Blurring of vision, dry mouth, difficult urination, and flushing or dryness of the skin may occur on higher dosage levels, rarely on usual dosage. Contraindications: Glaucoma; renal or hepatic disease; obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); or hypersensitivity to any of the ingredients.

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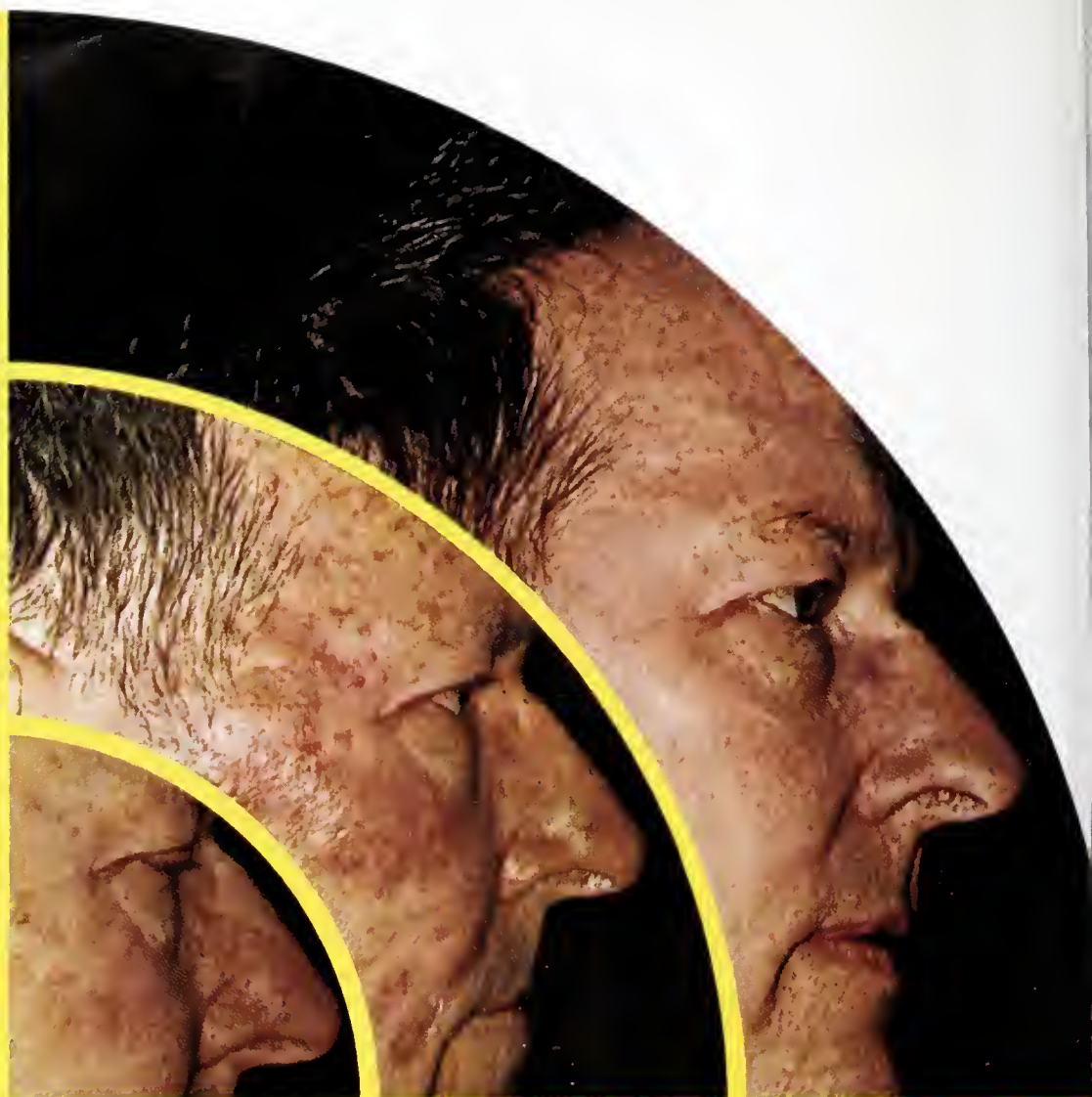
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Large enough to serve you”***



**1**  
chance  
in  
**4**  
of  
solar  
keratoses\*



At start of treatment with Efudex® (fluorouracil) Roche® 5% Cream—1/22/68. Patient shows widespread but mild solar keratoses.

Response after 11 days of treatment—2/2/68. Site of keratoses is now erythematous (erythematous reactions subside after therapy is discontinued). Lesions not visible before therapy have appeared. Intervening skin shows no response to application of cream.

One year after end of therapy—2/19/69. Skin appears clear, no evidence of scarring. No recurrences or new lesions.

\*Statistical projection based on an epidemiologic study of all white adults over 40 years of age in Tipton County, Tenn., to determine prevalence of solar keratoses.

People in southern areas of the United States are at more risk of developing solar keratoses than those in the northerly latitudes. But solar keratoses—also called actinic or senile keratoses—can occur among any white-skinned population, wherever people work or play outdoors. And because lesions may be premalignant, it is generally agreed that they should be treated. Conventional therapy may present certain drawbacks for the physician as well as the patient, but Efudex (fluorouracil) Roche offers an alternative mode of therapy that's inexpensive, highly convenient, and almost always effective.

## Selectivity of action

Healthy skin free of keratotic invasion shows no response to application of Efudex. Lesions which were not visible before therapy appear during application. Since the response is so predictable, lesions that do not respond should be biopsied to rule out the presence of frank neoplasm.

## Excellent cosmetic results

Treatment with Efudex usually provides highly acceptable cosmetic results, as is evident in the patient shown. The incidence of scarring is low.<sup>†</sup> This is particularly important with multiple facial lesions. Efudex should be applied with care near the nose, eyes and mouth.

## Convenience

To apply Efudex Cream to the skin, the patient may use a non-metal applicator, a suitable glove, or the fingertips. If the patient does not wear a glove, the hands should be washed immediately after the medication is applied. Efudex Solution is supplied in a plastic dispenser, which issues *only one drop* at a time—the Solution is very convenient to use for treating single lesions. It's convenient for you, too, to prescribe Efudex 5% Cream because it's almost impossible for a pharmacist to compound a 5% fluorouracil cream that has not lost its potency because of chemical degradation or evaporation during compounding.

## 5% Cream—a Roche exclusive

Only Roche formulates the 5% cream—high in patient acceptability—economical and superior in clinical efficacy to the 2% formulation for lesions of the hands and forearms.

Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey.

Practical therapy—  
predictable response

**Efudex**<sup>®</sup> 5%  
Cream  
fluorouracil/Roche<sup>®</sup>  
for solar keratoses

Before prescribing, please consult complete product information, a summary of which follows:

**Indications:** Multiple actinic or solar keratoses.

**Contraindications:** Patients with known hypersensitivity to any of its components.

**Warnings:** If occlusive dressing used, may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

**Precautions:** If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

**Adverse Reactions:** Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, sup-puration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

**Dosage and Administration:** Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

**How Supplied:** Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris (hydroxymethyl) amino-methane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.

Cream, 25-Gm tubes—containing 5% fluorouracil in a vanishing cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).



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Division of Hoffmann-La Roche Inc.  
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Please send me a pad of the new Efudex<sup>®</sup>  
(fluorouracil) Roche<sup>®</sup> Patient Instruction Sheets. H

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State \_\_\_\_\_

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#### NEW BUSINESS

A. *Dues:* Both Honolulu County Medical Society and the AMA have agreed to refund 1974 dues to Fronk Clinic for dues advanced for Douglas Murray, M.D., who has been unable to practice medicine for nearly two years.

**ACTION:**

It was voted to refund 1974 dues for Dr. Murray.

B. *Physician's Fees:* It has been suggested that HMA establish guidelines for physicians regarding adjustments to conversion factors.

**ACTION:**

A motion was made to ask third-party carriers to inform the county medical societies of any "out-of-line boosting" of conversion factors. It was noted that the county societies have already established committees to investigate matters relating to fees. It was voted to table the motion.

C. *AMA:* Copies of the article regarding "Turmoil in the AMA" were distributed to all.

D. *RMP Representatives:* HMA President Frissell reported he had met with RMP representatives to discuss physician representation on the Regional Advisory Group. Newly elected physicians to the RAG are Douglas B. Bell II, M.D. from Honolulu County Medical Society and Audrey Mertz, M.D. from Hawaii County Medical Society. HMA also requested a change in RMP bylaws calling for the election of the Nominating Committee.

#### ADJOURNMENT

The meeting adjourned at 9:20 P.M.

R. VARIAN SLOAN, M.D.  
Secretary

#### SPECIAL COUNCIL MEETING

July 16, 1974, 5:00 P.M.  
Mabel Smyth Lanai

#### CALL TO ORDER

Present were Drs. Thomas Frissell, Winfred Y. Lee, William E. Iaconetti, R. Varian Sloan, Grover H. Batten, Herbert Y. H. Chinn, J.I.F. Reppun, Douglas B. Bell II, Albert C. K. Chun-Hoon, William W. L. Dang, Ann B. Catts, Patrick J. Walsh and Mr. V. Thomas Rice.

A special Council meeting with the Honolulu County Board of Governors was called to discuss further developments in the pursuit of a new home for HMA-HCMS. Representatives from the real estate management firm and architectural agency presented a model of the proposed building to be located between Beretania and Hotel Streets near Ward Avenue.

**ACTION:**

The Council and Honolulu County Board of Governors voted as representatives of the HMA and HCMS respectively they wish this concept and idea of a new site to be pursued further.

The Board of Governors further voted that the Medical Plaza, Inc. be the vehicle to investigate further the development of the project at this time, of this project, for both HMA and HCMS.

R. VARIAN SLOAN, M.D.  
Secretary

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the real  
thing



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# how to civilize the of peptic ulcer...

give pain killers?...prescribe frequent eating?...use antacids on

## give pain killers only?

They relieve pain but may cause patient drug dependency and unnecessary sedation.

## prescribe frequent eating only?

Frequent feeding helps buffer acid, but caloric, digestive, and social considerations make frequent eating both difficult and impractical.

## use antacids only?

Antacids, like food, help neutralize or buffer stomach acidity. Their action is short, usually lasting only 1 to 1½ hours (given four hours after a meal).\* Some patients may require antacids every half hour.

# When you add Pro-Banthine<sup>®</sup> you

brand of  
propantheline bromide

**Indications:** Pro-Banthine is effective as adjunctive therapy in the treatment of peptic ulcer. Dosage must be adjusted to the individual.

**Contraindications:** Glaucoma, obstructive disease of the gastrointestinal tract, obstructive uropathy, intestinal atony, toxic megacolon, hiatal hernia associated with reflux esophagitis, or unstable cardiovascular adjustment in acute hemorrhage.

**Warnings:** Patients with severe cardiac disease should be given this medication with caution.

Fever and possibly heat stroke may occur due to anhidrosis.

In theory a curare-like action may occur, with loss of voluntary muscle

control. For such patients prompt and continuing artificial respiration should be applied until the drug effect has been exhausted.

Diarrhea in an ileostomy patient may indicate obstruction, and this possibility should be considered before administering Pro-Banthine.

**Precautions:** Since varying degrees of urinary hesitancy may be evidenced by elderly males with prostatic hypertrophy, such patients should be advised to micturate at the time of taking the medication.

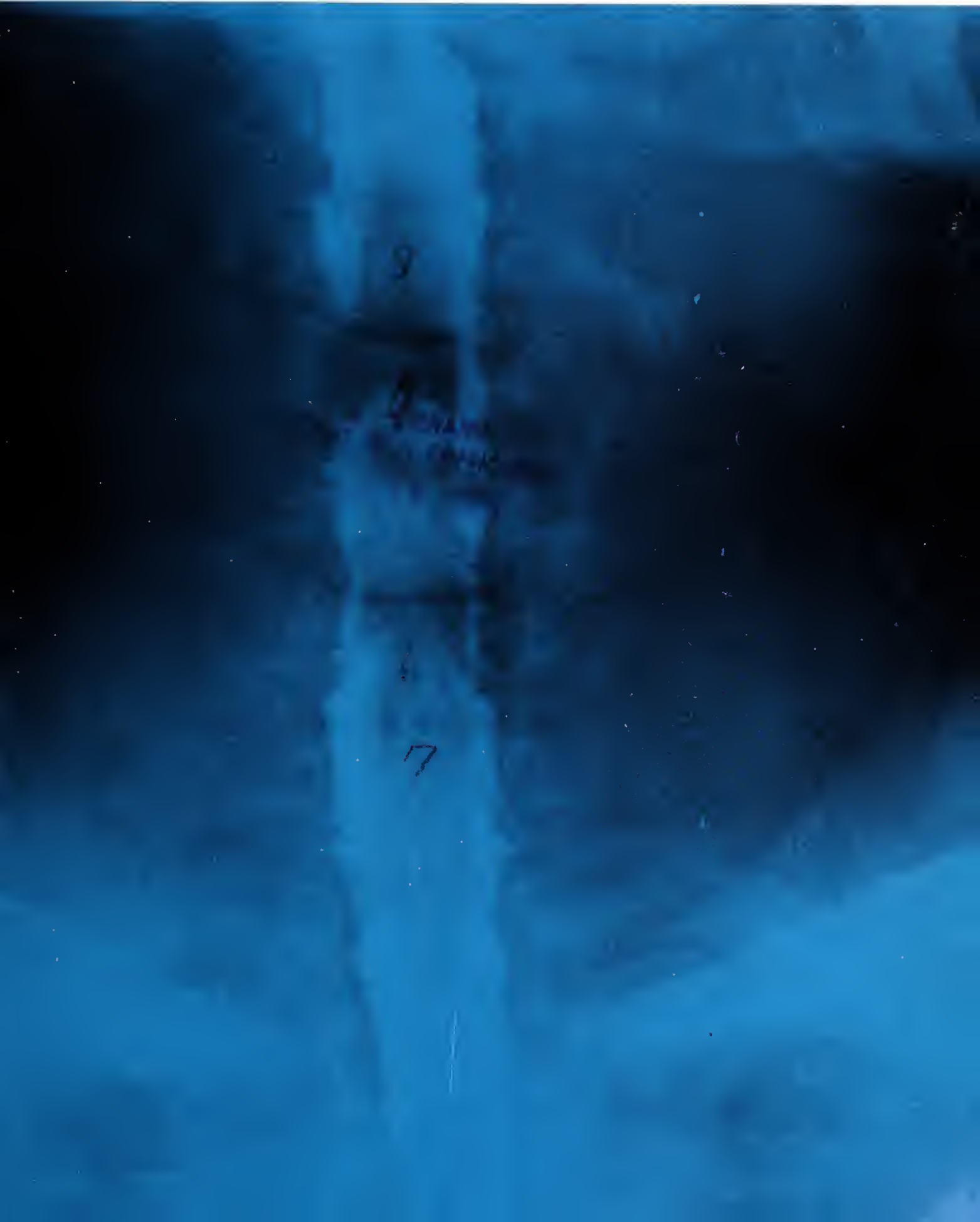
Overdosage should be avoided in patients severely ill with ulcerative colitis.

**Adverse Reactions:** Varying degrees of drying of salivary secretions may

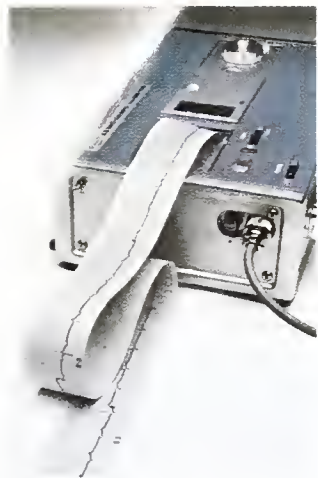
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# HAWAII MEDICAL JOURNAL

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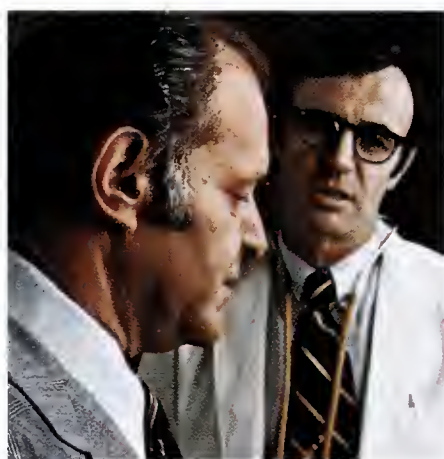






# Why add Librium® (chlordiazepoxide HCl) to your cardiovascular regimen?

Excessive anxiety in susceptible patients can set in motion a chain of responses which add to the heart's work and thereby increase the possibility of cardiovascular complications. Furthermore, intense anxiety may interfere with effective medical management since some patients, in an attempt to deny their illness, may resist acceptance of necessary medication, dietary restrictions and other therapeutic directives. When counseling and reassurance alone are inadequate to

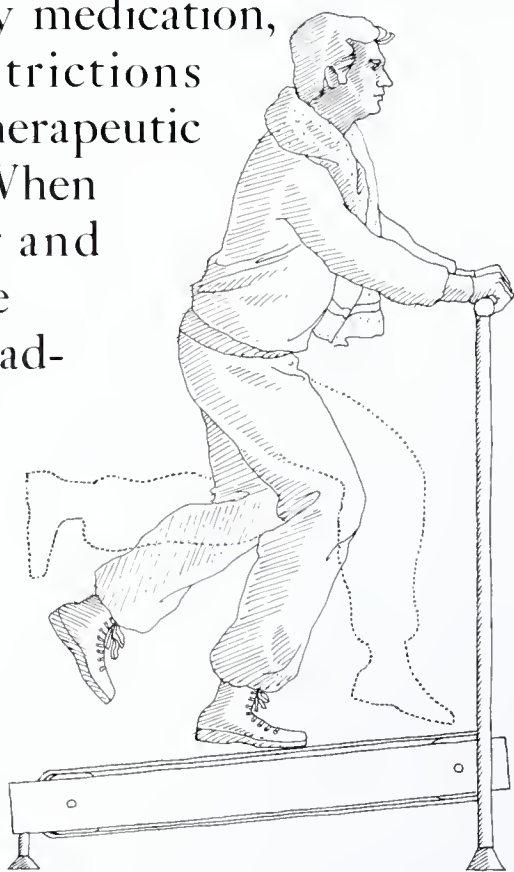


relieve undue anxiety, adjunctive Librium (chlordiazepoxide HCl) may be beneficial.

**"Specific" for anxiety reduction...  
wide margin of safety**

Librium is used as an adjunct to primary cardiovascular medications, since it acts directly on the central nervous system, reducing excessive anxiety and emotional tension. In so doing, Librium indirectly affects cardiovascular function.

Librium has a high degree of antianxiety effectiveness with a wide margin of safety. In proper dosage, Librium usually helps calm the overanxious patient without unduly interfering with mental acuity or general performance. In the elderly and debilitated, the initial dosage is 5 mg *b.i.d.* or less to preclude ataxia or oversedation, in





creasing gradually as needed and tolerated.

Librium is used concomitantly with certain specific medications of other classes of drugs, such as cardiac glycosides, diuretics, antihypertensive agents, vasodilators and anticoagulants. Although clinical studies have not established a cause and effect relationship, physicians should be aware that variable effects on blood coagulation have been reported very rarely in patients receiving oral anticoagulants and Librium. After anxiety has been reduced to tolerable levels, Librium therapy should be discontinued.



for relief of excessive anxiety  
adjunctive

**Librium® 10 mg**  
(chlordiazepoxide HCl)  
or 2 capsules t.i.d./q.i.d.



**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Relief of anxiety and tension occurring alone or accompanying various disease states.

**Contraindications:** Patients with known hypersensitivity to the drug.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

**Precautions:** In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or over sedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

**Adverse Reactions:** Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

**Supplied:** Librium® Capsules containing 5 mg, 10 mg or 25 mg chlordiazepoxide HCl. Libritabs® Tablets containing 5 mg, 10 mg or 25 mg chlordiazepoxide.



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**NEW**  
pediatric dosage form  
of an established  
G.U. specific with 8 years'  
clinical experience

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prescribe a proven oral agent with  
bactericidal action against Escherichia coli,  
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Controlled "today," the bacterial insult of child-  
ren's urinary tract infections may mean major renal  
damage for the adult "tomorrow." That's why early,  
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Control can often be maintained with a new pedi-  
atric dosage form of a G.U. specific that is highly effec-  
tive against the gram-negative spectrum.\* NegGram  
Suspension is bactericidal over the entire urinary pH  
range against *E. coli*, *Klebsiella*, *Aerobacter*, and  
*Proteus*, including *P. mirabilis*, *P.morganii*, *P. vulgaris*,  
and *Shigella*. Disc susceptibility testing is recom-

ended. NegGram Suspension offers these impor-  
tant advantages: fast symptomatic relief  
• rapid onset of action • no crystalluria or fungal over-  
growth reported to date in clinical reports and animal  
studies • no need to adjust acidity • low incidence of  
adverse side effects† • good correlation be-  
tween *in vitro* and *in vivo* response†† • no cross resist-  
ance has been reported with other antibacterials.

For the young patient, NegGram Suspension is  
ideal because of its delicious raspberry flavor.

Effective against *Pseudomonas*.

See List of Adverse Reactions.

L. H. and Cox, C. E.: Bacteriologic and pharmacodynamic  
studies of nalidixic acid, *J. Urol.* 104:908, Dec. 1970.

## Introducing NegGram<sup>®</sup> brand of nalidixic acid, NF Suspension for childhood urinary tract infection

NegGram<sup>®</sup> brand of nalidixic acid, NF  
Caplets<sup>®</sup> and Suspension

### Brief Summary

**Indications:** NegGram is indicated for the treatment of urinary tract infections caused by susceptible gram-negative microorganisms, including the majority of *Proteus* strains, *Klebsiella*, *Aerobacter* (or *Enterobacter*), and *E. coli*. Disc susceptibility testing with the 30 mcg. disc should be performed prior to administration of the drug, and during treatment if clinical response warrants.

**Contraindications:** NegGram is contraindicated in patients with known hypersensitivity to nalidixic acid and in patients with a history of convulsive disorder diseases.

**Warnings:** CNS effects including brief convulsions, increased intracranial pressure, and toxic psychosis have been reported rarely. These have occurred in infants and children or in geriatric patients, usually from overdosage or in patients with predisposing factors. If these reactions occur, NegGram should be discontinued and appropriate measures should be instituted. (See Adverse Reactions and Overdosage.)

**Usage in Pregnancy:** Safe use of NegGram during the first trimester of pregnancy has not been established. However, the drug has been used during the last two trimesters without producing apparent ill effects in mother or child.

**Precautions:** Blood counts and renal and liver function tests should be performed periodically if treatment is continued for more than two weeks. NegGram should be used with caution in patients with liver disease, severely impaired kidney function, epilepsy, or severe cerebral arteriosclerosis.

Patients should be cautioned to avoid undue exposure to direct sunlight while receiving NegGram. Therapy should be discontinued if photosensitivity occurs.

Bacteria resistant to NegGram may emerge rapidly, sometimes within 48 hours of treatment. Therefore, cultures and bacterial sensitivity tests should be repeated if the clinical response is unsatisfactory or if a relapse occurs.

Nalidixic acid may enhance the effects of oral anticoagulants, warfarin or bishydroxycoumarin, by displacing significant amounts from serum albumin binding sites.

When Benedict's or Fehling's solutions or Clinistix<sup>®</sup> Reagent Tablets are used to test the urine of patients taking NegGram, a false-positive reaction for glucose may be obtained, due to the liberation of glucuronic acid from the metabolites excreted. However, a colorimetric test for glucose based on an enzyme reaction (e.g., with Clinistix<sup>®</sup> Reagent Strips or Tes-Tape<sup>®</sup>) does not give a false-positive reaction to the liberated glucuronic acid.

Incorrect values may be obtained for urinary 17-keto and ketogenic steroids in patients receiving NegGram, because of an interaction between the drug and the *m*-dinitrobenzene used in the usual assay method. In such cases, the Porter-Silber test for 17-hydroxycorticoids may be used.

**Adverse Reactions:** Reactions reported after oral administration of NegGram include *CNS effects*: drowsiness, weakness, headache, and dizziness and vertigo. Reversible subjective visual disturbances without objective findings have occurred infrequently (generally with each dose during the first few days of treatment). These reactions include overbrightness of lights, change in color perception, difficulty in focusing, decrease in visual acuity, and double vision. They usually disappeared promptly when dosage was reduced or therapy was discontinued. Toxic psychosis or brief convulsions have been reported rarely, usually following excessive doses. In general, the convulsions have occurred in patients with predisposing factors such as epilepsy or cerebral arteriosclerosis. In infants and children receiving therapeutic doses of NegGram, increased intracranial pressure with bulging anterior fontanel, papilledema, and headache has occasionally been observed. A few cases of 6th cranial nerve palsy have been reported. Although the mechanisms of these reactions are unknown, the signs and symptoms usually disappeared rapidly with no sequelae when treatment was discontinued. *Gastrointestinal*: abdominal pain, nausea, vomiting, and diarrhea. *Allergic*: rash, pruritus, urticaria, angioedema, eosinophilia, joint stiffness, and rarely, anaphylactoid reaction. Photosensitivity reactions, primarily involving exposed skin surfaces, have disappeared after therapy was discontinued. *Other*: rarely, cholestasis, paresthesia, metabolic acidosis, thrombocytopenia, leukopenia, or hemolytic anemia which in some patients may have been associated with a deficiency in activity of glucose-6-phosphate dehydrogenase.

**Dosage and Administration:** *Adults.* The recommended dosage for initial therapy in adults is 1 g. administered four times daily for one or two weeks (total daily dose, 4 g.). For prolonged therapy, the total daily dose may be reduced to 2 g. after the initial treatment period.

*Children.* Until further experience is gained, NegGram should not be administered to infants younger than three months. Dosage in children 12 years of age and under should be calculated on the basis of body weight. The recommended total daily dosage for initial therapy is 25 mg./lb./day (55 mg./kg./day), administered in four equally divided doses. For prolonged therapy, the total daily dose may be reduced to 15 mg./lb./day (33 mg./kg./day). NegGram Suspension or NegGram Caplets of 250 mg. may be used. One 250 mg. Caplet is equivalent to one teaspoon (5 ml.) of the Suspension.

**Overdosage:** *Manifestations.* Toxic psychosis, convulsions, increased intracranial pressure, or metabolic acidosis may occur in patients taking more than the recommended dosage. Vomiting, nausea, and lethargy may also occur following overdosage. *Treatment.* Reactions are short lived (two to three hours) because the drug is rapidly excreted. If overdosage is noted early, gastric lavage is indicated. If absorption has occurred, increased fluid administration is advisable and supportive measures such as oxygen and means of artificial respiration should be available. Although anticonvulsant therapy has not been used in the few instances of overdosage reported, it may be indicated in a severe case.

**How Supplied:** Suspension (250 mg./5 ml. tsp.), raspberry flavored, bottles of 4 fluidounces and 1 pint.

Caplets of 250 mg., scored, bottles of 56 and 1000.

Caplets of 500 mg., scored, bottles of 56, 500, and 1000.



Before prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary.

**Indications:** Edema associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. Also, mild to moderate hypertension.

**Contraindications:** Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

**Warnings:** Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia ( $> 5.4$  mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities.

Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently — both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

**Precautions:** Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

**Supplied:** Bottles and Single Unit Packages of 100 capsules.

SK&F CO.  
Carolina, P.R. 00630  
Subsidiary of  
SmithKline Corporation

# KEEP THE HYPERTENSIVE PATIENT ON THERAPY KEEP THERAPY SIMPLE WITH **DYAZIDE**

Trademark

Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

**No potassium supplements**

**No special K<sup>+</sup> rich diets**

**Just 'Dyazide' once daily or twice daily**



Studies have demonstrated that two prime reasons patients drop out of hypertensive therapy are: (1) the patient failed to understand directions, and (2) the regimen was overly complicated.\* Dosage is simple with 'Dyazide', easily understood, once or twice daily, depending on response. There's no need to complicate the regimen with potassium supplements or unwieldy potassium-rich diets.

\*E.D. Freis: The Modern Management of Hypertension, V.A. Information Bulletin, 11-35.

## TO KEEP BLOOD PRESSURE DOWN TO KEEP POTASSIUM LEVELS UP

Physician's Report of Services Rendered

HAWAII MEDICAL SERVICE ASSOCIATION

MEMBERSHIP NUMBER

654026

MEMBER'S NAME

John Smith

FEDERAL BLUE SHIELD - BLUE CROSS PLAN FILL IN

OTHER MEDICAL COVERAGE

YES ☐ NO ☐ NAME OF CARRIER

PATIENT'S COMPLAINT

SURGICAL PROCEDURE (USE

Future of Doctorate

URGENT

OFFICE VISIT ☐ CHECK IF NEW PATIENT

HOSPITAL VISIT

LABORATORY (Itemize)

RAY (NO. OF VIEWS) (Itemize)

IMMUNIZATIONS (Itemize)

DRUG

INJECTION

AX

LESS PAID BY PATIENT

FOR DESCRIPTION OF UNUSUAL OR COMPREHENSIVE SERVICE USE REVERSE SIDE

REMARKS:

# Fast, fast relief for physicians.

We know you'll feel a lot better when your bills get paid promptly. You can get fast service from HMSA if you submit your claims promptly. It will not only keep your accounts current, the cash flow situation in your office will be a lot healthier.

HMSA, Hawaii's largest non-profit medical plan, goes a long way in easing the pains of financial worry. And we do a better job because of your help.

PAID

N.E. Doktor, M.D. 7/10/72

DOCTOR'S SIGNATURE



**Hawaii Medical Service Association**



# The Role of the Detail Man

"I may be prejudiced, but I am very much in favor of the detail men I meet. Most of them are knowledgeable about the drugs they promote and can be a great help in acquainting me with new medication."

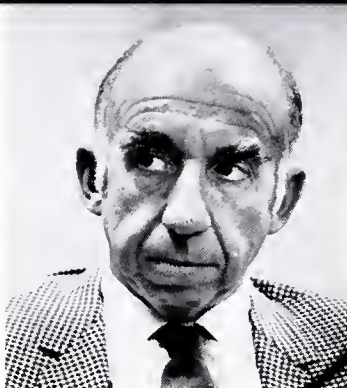
## Family Physician's Perception

I think that most general practitioners in this area feel as I do about the detail man. Over the years I have gotten to know most of the men who visit me regularly and they in turn have become aware of my particular interests and the nature of my practice. They, therefore, limit their discussion as much as possible to the areas of interest to me. Since I usually see the same representative again in future visits, it is in his best interest to supply me with the most honest, factual, as well as up-to-date information about his products.

Dr. Willard Gobbell  
Family Physician  
Encino, California



Dr. Jeremiah Stamler  
Chairman  
Department of Community  
Health and Preventive  
Medicine, and Dingman  
Professor of Cardiology  
Northwestern University  
Medical School



"In the total picture of dealing with health problems in this country, there is a potential for detail men to play a meaningful role."

## The Positive Influence

My contact with representatives and salesmen of the pharmaceutical industry is the type of contact that people in a medical center, research people, and academic people have and that's in all likelihood on a somewhat different level from that of the practicing physician.

Let me touch on how I personally perceive the role of the sales representative. These men reach large numbers of health professionals. Thus they could be—and at times actually are—disseminators of useful information. They could consistently serve a real educational function in their ability to discuss their products.

At present they do distribute printed material, brochures and pamphlets—some of it scientifically sound and therefore truly useful—as well as some excellent films produced by the pharmaceutical industry. When they function in this

## He a Source of Information?

Yes, with certain reservations. The average sales representative has a great fund of information about the drug products he is responsible for. He is usually able to answer most questions fully and intelligently. He can also supply reprints of articles that contain a great deal of information. Here, too, I exercise some caution. I usually accept most of the statements and opinions that I find in the papers and studies which come from the larger teaching facilities. I go without saying that a physician should also rely on other sources for his information on pharmacology.

## Training of Sales Representatives

Ideally, a candidate for the position as a sales representative of a pharmaceutical company should be a graduate pharmacist who has a questioning mind. I don't think this is possible in every case, and so it becomes the responsibility

of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as updated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce — information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone

in the health care field, whether they be general practitioners, surgeons or salesmen.

## Value of Sampling

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

capacity they are indeed useful; particularly in the fact that they disseminate broadly based educational material and serve not just as "pushers" of their drugs.

## The Other Side of the Coin

Obviously, the pharmaceutical companies are not producing all this material as a labor of love — they are in the business of selling products for profit. In this regard the ambitious and improperly motivated sales representative can exert a negative influence on the practicing physician, both by presenting a one-sided picture of his product, and by encouraging the practitioner to depend too heavily on drugs for his total therapy. In these ways, the salesman has often distorted objective reality and undermined his potential role as an educator.

## The Industry Responsibility

Since the detail man must be an information resource as well as representative of his particular pharmaceutical company, he should be carefully selected and

thoroughly trained. That training, perforce, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public — i.e., the patients — will be.

## Physician Responsibility

The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that informa-

tion must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed ethical. I challenge the industry as a whole to live up to that word in its finest sense.

*Pharmaceutical  
Manufacturers Association  
1155 Fifteenth Street, N.W.  
Washington, D. C. 20005*





# Letters to the Editor

Dear Editor:

This letter is written to challenge the statement made in the editorials section of the August, 1974 issue.

Who is Doris R. Jasinski, M.D.? To make a statement of "... Queen's has probably the best all-around medical residency program in Honolulu" without clarification is totally unfair and misleading. St. Francis and affiliated hospitals medical residency programs and the Tripler Army Hospital program are both fully accredited and should be recognized. A particular feature of the St. Francis program is that it utilizes facilities throughout the City which provide experience for house staffs under different forms of medical care delivery. The participating hospitals, besides St. Francis Hospital, include Leahi, Kaiser, Kuakini and Straub Clinic and Hospitals. The success of the training program can be directly attributed to the combined efforts of Drs. Charles Tashima, H.H. Chun and the directors of medical education of each institution, and to the many excellent teachers and practitioners of internal medicine in Honolulu. Queen's may rise again, but in the meantime please recognize the programs that have already risen.

Sincerely yours,  
JAMES LUMENG, M.D.  
Associate Pathologist  
St. Francis Hospital

Dear Editor:

Since completion of my training I have been involved with numerous programs funded by the National Foundation—March of Dimes. The several chapters of the islands of Hawaii have invested more than a quarter of a million dollars in prevention and treatment of birth defects in our beautiful island children. The vast majority of this has been visible as the Birth Defects Treatment Center at Children's Hospital; but they also have supported and funded numerous other activities, including a genetic counselling training program at the University of Hawaii, public education programs and Rubella vaccination programs.

Now the National Foundation has broadened its focus and direction. Major efforts are underway to improve prenatal and perinatal services to the end of reducing fetal and neonatal mortality and morbidity. Through its Headquarters in White Plains and its 2400 Chapters across the country, the Foundation has mounted a comprehensive program to improve the outcome of all pregnancies.

The elements of this program are:

1. Research into the causation and prevention of reproductive loss through the first four weeks after birth.
2. Professional Education to increase the number and to upgrade the competence of trained professionals, especially in nursing.
3. Medical Service grants providing funds for equipping and staffing maternal and neonatal intensive care units as well as for establishing prenatal care services.
4. Public Education to increase the awareness of the need for prenatal care and to inform women what they can do to reduce the risks of pregnancy.

The challenges and problems in achieving significant advances against fetal-infant morbidity and mortality are enormous. The National Foundation is confident, however, that the combined efforts of a voluntary organization, professionals directly providing care and enlightened public agencies will improve the outcome of pregnancy and assure that a larger proportion of the next generation will be free from birth defects.

Yours most sincerely,  
SHARON J. BINTLIFF, M.D.  
Director, Birth Defects Center

We are asking you to make a very important moral decision.

It is similar to writing a will. But you won't be leaving money or property or the accumulated trappings of a lifetime.

You will be leaving behind things you never worked for. They were given to you in the miracle of life. We are simply asking you to pass them along to someone who will need them far more than you.

# GIVE UNTO OTHERS.

Through the Makana Foundation — Hawaii's own organ and tissue registry — we are asking you to bequeath your vital organs at time of death.

Your kidneys will help two persons live normal lives again. Your eye corneas will help others see. Your bone marrow will correct blood deficiencies.

In a secular way, you will be giving life . . . after death. It is the ultimate makana.

For a donor card and a brochure, write Makana Foundation, Post Office Box 3739, Honolulu, Hawaii 96812. Or phone 536-7416. After hours 536-7771.

**MAKANA FOUNDATION**

# The new nutritional margarine labels have a message about you.

INFORMATION ON FAT AND CHOLESTEROL CONTENT IS PROVIDED FOR INDIVIDUALS WHO, ON THE ADVICE OF A PHYSICIAN, ARE MODIFYING THEIR TOTAL DIETARY INTAKE OF FAT AND CHOLESTEROL.

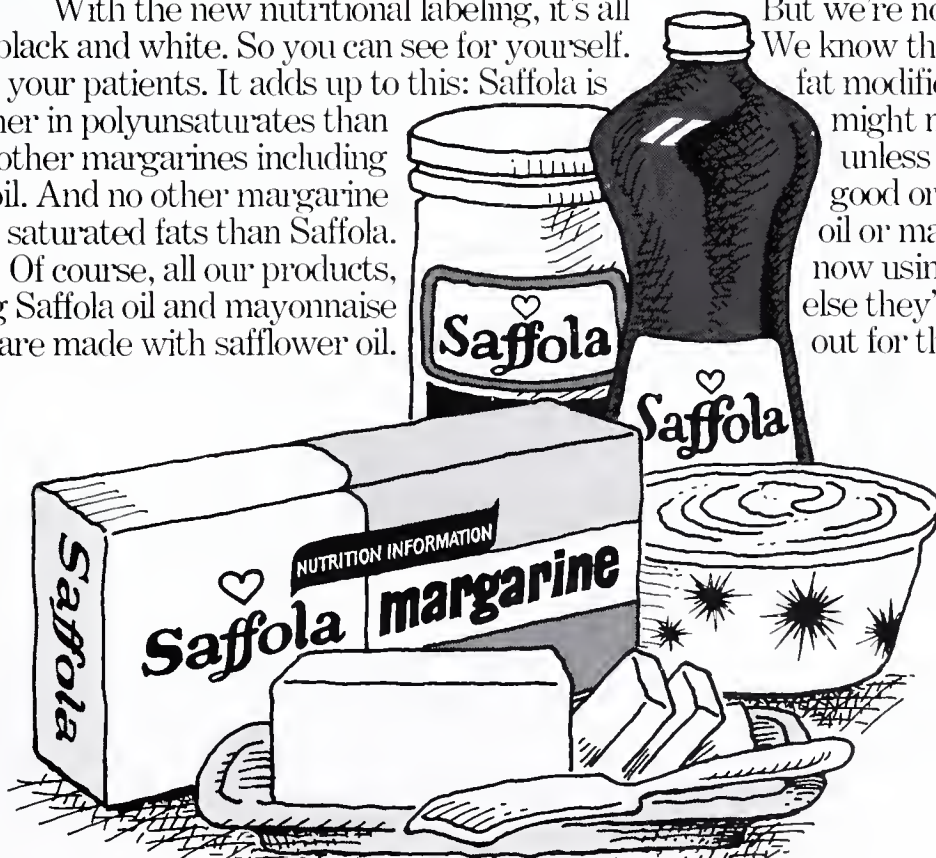
Mandatory nutritional statement on the back of all margarine labels.

## Saffola<sup>®</sup> wants you to get the rest of the message.

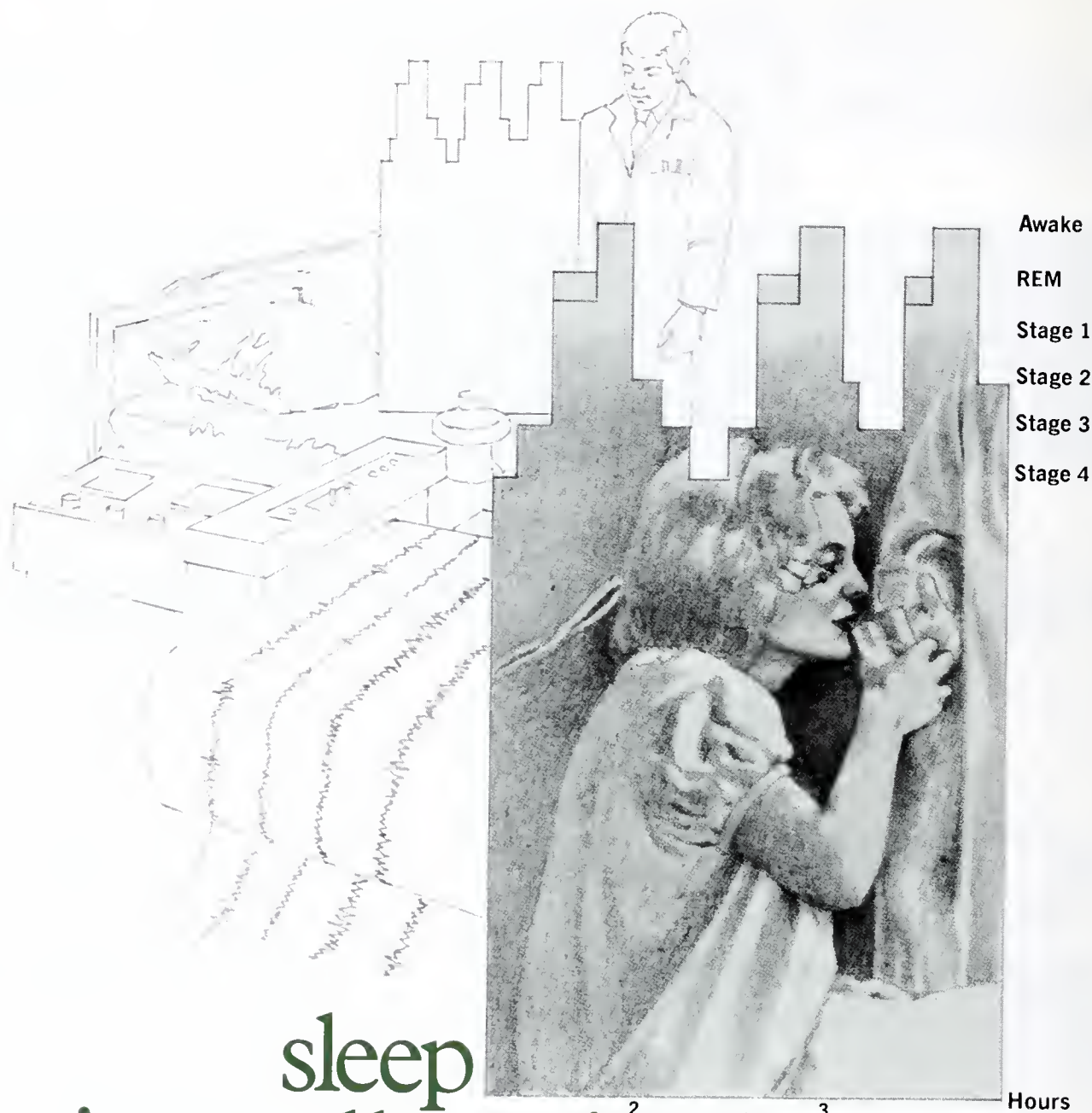
MAZOLA		IMPERIAL		SAFFOLA	
Nutrition Information Per Serving		Nutrition Information Per Serving		Nutrition Information Per Serving	
Serving size	14 grams (about one tablespoon)	Serving size	14 grams (about one tablespoon)	Serving size	14 grams (about one tablespoon)
Servings per container	32	Servings per container	32 (per pound container)	Servings per container	32 (per pound container)
Calories	100	Calories	100	Calories	100
Protein	0 grams	Protein	0 (not a significant source of protein)	Protein	0
Carbohydrate	0 grams	Carbohydrate	0	Carbohydrate	0
Fat	11 grams	Fat	11 grams	Fat	11 grams
*Percent of calories from fat	99%	Percent of calories from fat	over 99%	Percent of calories from fats	100%
*Polyunsaturated	3 grams	**Polyunsaturated	3 grams	Polyunsaturated	5 grams
*Saturated	2 grams	**Saturated	2 grams	Saturated	2 grams
*Cholesterol	0 (0. per 100 grams)	**Cholesterol	0 (0. per 100 grams)	Contains no cholesterol	
Sodium	120 milligrams (865 mg/100 gm.)				
Percentage of U S recommended daily allowances (U S RDA)		Percentage of U S recommended daily allowances (U S RDA)*		Information of fat and cholesterol content is provided for individuals who, on the advice of a physician, are modifying their total dietary intake of fat and cholesterol Percentage of U S recommended daily allowances (U S RDA)	
Vitamin A 10%		Vitamin A 10%	Vitamin D 15%	Vitamin A 10%	Vitamin E 15%
Contains less than 2 percent of the U S RDA of pro- tein, Vitamin C, thiamine, riboflavin, niacin, Calcium, and iron.		*Contains less than 2 percent of the U S RDA of Vitamin C, thiamine, riboflavin, niacin, calcium, and iron		Contains less than 2 percent of the U S RDA of pro- tein, Vitamin C, thiamine, riboflavin, niacin, calcium, and iron	
*Information on fat and cholesterol content is provided for individuals who, on the advice of a physician, are modifying their total dietary intake of fat and cholesterol		**Information of fat and cholesterol content is provided for individuals who, on the advice of a physician, are modifying their total dietary intake of fat and cholesterol			

With the new nutritional labeling, it's all there in black and white. So you can see for yourself. And so can your patients. It adds up to this: Saffola is higher in polyunsaturates than most other margarines including corn oil. And no other margarine is lower in saturated fats than Saffola. Of course, all our products, including Saffola oil and mayonnaise are made with safflower oil.

But we're not kidding ourselves. We know that even if you advise a fat modified diet, your patients might not switch to Saffola. Not unless it tastes every bit as good or better than the spread, oil or mayonnaise they're now using. That's something else they're going to find out for themselves.





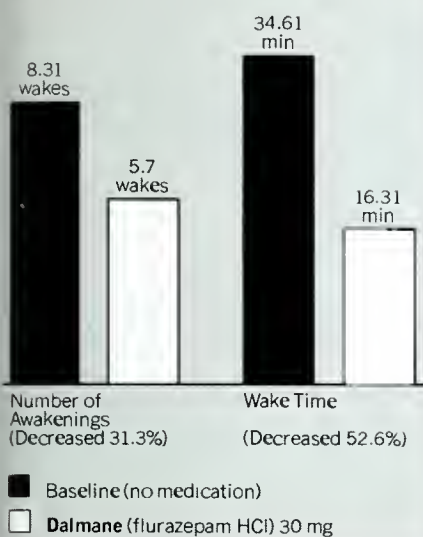


sleep  
is usually maintained with  
fewer nighttime awakenings...  
a consistent benefit of

**Dalmane<sup>®</sup>**  
(flurazepam HCl) proved by a  
17-night clinical study in the sleep research  
laboratory evaluating effectiveness in  
insomnia patients<sup>1</sup>

Eight patients received no medication on nights 1-4; Dalmane (flurazepam HCl) or placebo on nights 5-9; crossover capsule, nights 10-14; and no medication, nights 15-17. While placebo had no significant effect on sleep maintenance, Dalmane reduced nighttime awakenings by 55.1% when given on nights 5-9, 43.7% on nights 10-14. When four control subjects received placebo on the 10 "drug" nights, awakenings *increased* 11.5% over baseline.<sup>1</sup>

Average Number of Awakenings and Minutes of Wake Time (4 Studies, 16 Subjects)<sup>2-5</sup>



## confirmed by clinical studies in four geographically separated sleep research laboratories<sup>2-5</sup>

Using a 14-night protocol, involving eight insomniac and eight normal subjects, four studies confirmed the sleep-maintaining effectiveness of Dalmane (flurazepam HCl) and the reproducibility of this response. On average, one 30-mg capsule reduced number of awakenings by 31.3% and wake time by 52.6%. In all these studies, Dalmane induced sleep rapidly, on average within 17 minutes; reduced nighttime awakenings; and provided, on average, 7 to 8 hours of sleep without repeating dosage.<sup>2-5</sup>

## Dalmane (flurazepam HCl) induces and maintains sleep, with relative safety

Dalmane is generally well tolerated; morning "hang-over" has been relatively infrequent. While dizziness, drowsiness, lightheadedness and the like have been noted most often, particularly in the elderly and debilitated, physicians should be aware of the possibility of more serious reactions, as noted in the Complete Product Information.

Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:

**Indications:** Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

**Contraindications:** Known hypersensitivity to flurazepam HCl.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

**Precautions:** In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

**Adverse Reactions:** Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, e.g., excitement, stimulation and hyperactivity, have also been reported in rare instances.

**Dosage:** Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

**Supplied:** Capsules containing 15 mg or 30 mg flurazepam HCl.

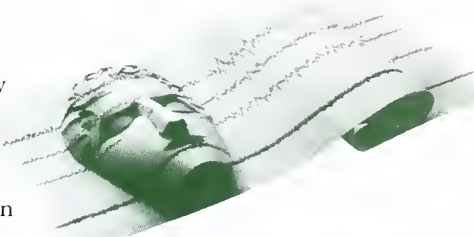
**REFERENCES:** 1. Kales J, et al: *Clin Pharmacol Ther* 12:691-697, Jul-Aug, 1971

2. Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington DC, May 3-7, 1971

3. Frost JD Jr: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ

4. Vogel GW: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ

5. Dement WC: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ



when restful sleep is indicated

# Dalmane<sup>®</sup> (flurazepam HCl)

**One 30-mg capsule h.s. — usual adult dosage** (15 mg may suffice in some patients).

**One 15-mg capsule h.s. — initial dosage for elderly or debilitated patients.**

- induces sleep within 17 minutes, on average
- reduces nighttime awakenings
- sustains sleep 7 to 8 hours, on average, without repeating dosage



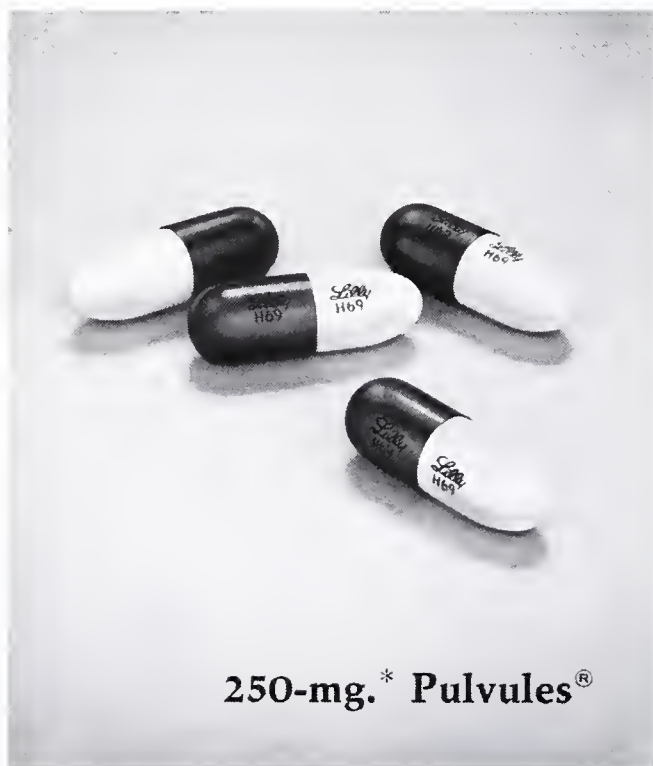
ROCHE LABORATORIES  
Division of Hoffmann-La Roche Inc.  
Nutley, New Jersey 07110



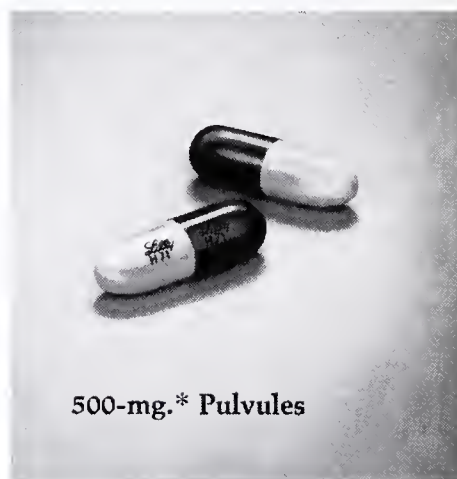
# Keflex<sup>®</sup>

cephalexin monohydrate

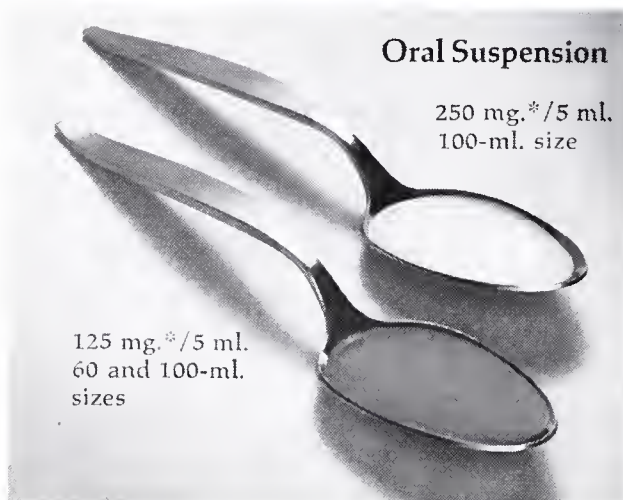
*it  
makes  
sense*



250-mg.\* Pulvules<sup>®</sup>



500-mg.\* Pulvules



## Oral Suspension

250 mg.\* / 5 ml.  
100-ml. size

125 mg.\* / 5 ml.  
60 and 100-ml.  
sizes



## Pediatric Drops

100 mg.\* / ml.  
10-ml. size

\*Equivalent to cephalexin.

*Additional information available  
to the profession on request.*

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400123

## WINDSOR C. CUTTING MEMORIAL LECTURE

*The first Windsor C. Cutting Memorial Lecture was presented at the University of Hawaii School of Medicine by Professor Ulf S. von Euler, 1970 Nobel Laureate in Medicine/Physiology, May 7, 1974. The endowed lectureship, a memorial to the late Dean of the School of Medicine at the University of Hawaii, was established by contributions made by Dr. Cutting's many friends throughout the world.*

BERT K. B. LUM, Ph.D., M.D.

# Adrenergic Neurotransmitter Storage and Release

U.S. VON EULER, M.D.,\* *Stockholm, Sweden.*

I greatly appreciate the invitation to deliver the first Windsor C. Cutting Memorial lecture here in Honolulu in honor of the late pharmacologist who did so much for the development of modern pharmacology and medicine in this area.

I have chosen to speak of some aspects of adrenergic neurotransmission, a field in which many of the mechanisms are still incompletely understood and where opinions differ as to the interpretation of the available facts.

After Cannon's and Loewi's pioneer work on chemical neurotransmission in the 20's, steady progress in various directions have been made. The finding<sup>1</sup> that the adrenergic transmitter was stored in subcellular particles in the axons and accumulated in the terminal swellings<sup>2</sup> raised a number of new problems concerning transmitter synthesis, storage, and release.

It is generally assumed that the particles are formed in the Golgi apparatus in the cell soma of the adrenergic neuron. In order to reach the terminal parts of the axon from where the transmitter shall be released, the particles have to be transported by the axoplasmic flow to the periphery.<sup>3, 4</sup> This concept has been strongly sup-

ported by the experiments and findings of Dahlström,<sup>5</sup> who demonstrated by the histochemical technique of Falck and Hillarp the accumulation of transmitter centrally to the place where the nerve trunk had been constricted.

The NE content of the bovine splenic nerves, which are almost exclusively adrenergic, is 10–20  $\mu\text{g/g}$ , while the estimated concentration in the terminal swellings is of the order of 1–2 mg/g, a concentration of 100 times. Assuming that the NE content of the particles is about the same of the particles in the axon and in the nerve endings, one would expect to find a 100-fold concentration of particles in the varicosities. In nerve sections the particles lie far apart in contrast to the packed appearance in the terminal swelling, but the exact proportions are difficult to ascertain.

In order to fulfil their functions the storing particles must have a high affinity for NE and at the same time be able to give off their content readily. Both these postulates have been shown to be valid. The transmitter is bound to the particle in such a way that it cannot be washed out in an isotonic salt solution or sucrose at 0°. Thus there is only a minimal loss of NE from particles over hours in a cold medium, which presumably also holds for transmission *in vivo* at low temperature. At higher temperature the NE release increases rapidly, however, and at 37°C the half-time is as short as a few minutes, the actual value depending on the composition of the medium, in the first place its NE concentration and its ionic content. Isolated nerve particles take up

Abbreviations: NE = norepinephrine, E = epinephrine, DA = dopamine, DBH = dopamine-beta-hydroxylase.

#### \*ABOUT THE AUTHOR:

Ulf Svanse von Euler-Chelpin, the first Windsor C. Cutting Memorial lecturer, is a 69-year-old Swedish physiologist who received the Nobel Prize in medicine and physiology in 1970, and has been extensively honored and decorated for his professional accomplishments, notably the discovery of Substance P (with Gaddum), and of prostaglandin in accessory genital glands, and the identification of noradrenalin as the neurotransmitter in the sympathetic nervous system. He works at the Karolinska Institute in Stockholm.



NE from the medium in concentrations from about 0.1  $\mu$ M on, with an affinity constant ( $K_M$ ) of 1.5  $\mu$ M. This uptake is strongly enhanced by addition of ATP and  $Mg^{2+}$ .<sup>6</sup> In the presence of 3mM ATP- $Mg^{++}$  in the medium, NE release and uptake in the granules actually balance each other when the NE concentration is about 1–3  $\mu$ M in the medium. Without addition of ATP- $Mg^{++}$  the corresponding NE concentration for balanced release and uptake is considerably higher, or about 0.1 mM.

While ATP- $Mg^{++}$  does not seem to influence the "spontaneous" release rate from granules as such, it obviously has a great influence on the NE balance by increasing the uptake rate. It is known that the granules contain ATP, but it is still a matter of debate whether the ATP is produced by the granules themselves or is supplied by the mitochondria which are always present in the terminal swellings. On incubation of granules in phosphate buffer some ATP is released but at a much slower rate than NE.

Various observations strongly suggest that uptake and release of NE are metabolically dependent. Thus a number of metabolic inhibitors exert marked effects on both uptake and release of NE. If, for example, a suspension of nerve granules is incubated with an uncoupler of oxidative phosphorylation, like dinitrophenol (DNP) or cyanocarbonyl-*m*-chlorophenyl hydrazone (CCP) even in low concentrations, uptake of NE is no longer possible. As a result the NE content falls off at a faster rate, the basic release rate. This can be determined for each suspension medium if NE is removed continuously from the medium, for instance with  $K_3FeCy_6$  5mM. It is tempting to conclude from these experiments that an  $Mg$ -dependent ATP-ase is a prerequisite for the metabolic process responsible for the uptake and binding of NE in the granules. The nature of the binding is still unknown, although it has been postulated that the NE molecule binds to protein or lipoprotein with the aid of ATP.<sup>7</sup> It may also be recalled that NE binds to phospholipids to a compound soluble in lipid solvents, which is readily dissociated by polyvalent anions like orthophosphates in aqueous solution.

The basic release rate, ie, without NE in the medium, increases steeply with temperature. Thus the half-time at 20° in isotonic potassium phosphate buffer at pH 7.0 is about 35 min, but only 3–4 min at 37°. It is possible to lower the net release rate by addition of a variety of drugs, of which reserpine and prenylamine may serve as examples. Apparently these and many other drugs either interfere with an enzymatically monitored release process or else cause physico-chemical or conformational changes in the macromolecular binding system, so as to inhibit or prevent dissociation of the transmitter binding. The relevance of such concepts for the physio-

logical transmitter release during nerve stimulation will be further discussed later.

The uptake process is moderately depressed in an isotonic medium containing high concentrations of the monovalent cations sodium potassium, but is enhanced by phosphate. Thus the highest uptake rates have been observed in a sucrose medium with 5–30 mM phosphate. Calcium ions have little effect on uptake and release, but in the presence of phosphate, causing a precipitate, release is much enhanced.

Uptake of NE in the granules is stereospecific, in that the (+)-enantiomer is much less readily taken up than the natural (-)-NE. In addition to the specific uptake it is found that incubation of a granule suspension with NE in increasing concentrations leads to an uptake which, however, is nonsaturable and apparently nonspecific. A similar kind of uptake occurs in a variety of cells and tissues.

After previous partial depletion of the NE content of isolated nerve granules for instance by incubation for 10 min at 37°, it is possible to refill the granules with NE by continued incubation in the presence of NE and ATP- $Mg^{++}$ . *In vivo* such repletion or net uptake can be achieved by injection of NE into the animal after previous depletion, with for instance the NE synthesis inhibitor decaborane. It can also be demonstrated in perfused isolated organ or after injection of NE into the whole animal.<sup>8,9</sup>

The action of indirectly acting amines can be readily demonstrated on the isolated granule system. Thus tyramine (TA) increases the net release rate of NE from a suspension of granules.<sup>10</sup> In this case TA is taken up competitively with NE in the granules and transformed by  $\beta$ -hydroxylation to octopamine, which then may serve as a false transmitter. Dopamine is also taken up in a similar fashion as evidenced by the incorporation of the labelled compound, and transformed to NE. The most active of the indirectly acting amines is phenethylamine, which, in addition to blocking uptake of NE competitively also seems to increase NE release rate per se. The release of NE by indirectly acting amines does not require calcium.

As mentioned previously, uncouplers of oxidative phosphorylation strongly inhibit NE uptake and thereby increase the net release rate on incubation of isolated granules. Also a number of other metabolic inhibitors and co-factors influence release and uptake of NE. Whereas cyanide and azide had no overt action on these processes, a number of inhibitors at various stages in the respiratory chain have such effects. Thus rotenone, chlorpromazine, antimycin and oligomycin at  $10^{-5}$ – $10^{-4}$ M concentrations inhibit both release and uptake of NE. The sulfhydryl reagent N-ethylmaleimide has a moderate inhibitory effect on NE-uptake, but does not seem to influence release.

In some cases addition of drugs causes a strong depletion of NE from the granules, as observed after higher concentration of reserpine, prenylamine, chlorpromazine, desaspidine and some other compounds. These effects seem to be nonspecific in nature and depend on membrane damage, as indicated by the fact that the depletion also occurs at 0°C, which is not the case for TA and other drugs. The effect of TA therefore presumably depends on the spontaneous NE release, which is temperature dependent.

NE synthesis apparently occurs in all parts of the adrenergic neuron, and is intimately connected with the occurrence of granules which contain the enzyme dopamine- $\beta$ -hydroxylase (DBH) transferring the precursor dopamine to NE. This enzyme is capable of oxidizing in  $\beta$ -position not only dopamine but also other ethylamines such as epinine, tyramine, and phenethylamine to their respective ethanolamines. The affinity of these amines to the binding sites in the granules relative to NE will determine their NE-substituting effect and their activity as indirectly-acting amines. Since they also occupy the mitochondrial monoamine oxidase (MAO), the released NE will have a greater chance to diffuse out and reach the target cells and act upon them.

Under normal conditions the synthesis is regulated by a feedback system which enhances synthesis when release is increased. Under some conditions this regulating system seems to be derailed: for instance, when reserpine is allowed to act in conjunction with an MAO inhibitor like nialamide. This can be illustrated on the spinal cat in which moderate doses of either reserpine or nialamide have no overt action on the blood pressure or heart rate. When allowed to act together a strong rise in blood pressure and heart rate ensues. Clinically this uncontrolled formation and release of NE may even prove fatal. Presumably this is an effect of reserpine, whose action is unmasked by the MAO-inhibitor.

It is thus well established that NE is synthesized in the granules and stored there. Observations made by loading the granules with radioactively labelled NE suggests that there is a continuous release-and-uptake process going on. Normally this process seems to be accompanied by only a moderate loss of transmitter, mainly by the MAO system, leading to a small, continuous overflow into the circulation and subsequent excretion in urine of free NE and acid metabolites. The average 24-hour excretion of the main metabolite in man, vanilmandelic acid, is of the order of 3–6 mg, or some 2–4  $\mu$ g per min, probably less during resting periods. The amount of free and conjugated NE in urine is only about 1–2% of this quantity under ordinary conditions. In spite of this, the excretion of free NE in urine gives valuable information on the total activity of

the adrenergic system in animals and man, as seen for instance during strenuous physical exercise, when the excretion of free NE may be increased 20–40 fold, or from 10 ng/min to over 400 ng/min.<sup>11</sup>

The next question is how the stored NE is released during nerve stimulation. This problem is still under debate, and various opinions have been expressed in the literature. What is known for certain that  $\text{Ca}^{++}$  is involved. When the depolarization wave reaches the nerve terminal, obviously some change in the membrane structure occurs, enabling it to let granular contents leak out. How this occurs is unknown. In analogy with the chromaffin cells it has been shown that nerve stimulation is associated with secretion from the axon not only of the transmitter but also of DBH and a specific protein, chromogranin A.<sup>12</sup> In fact DBH normally occurs in circulating blood, apparently released in large part from adrenergic nerve endings.<sup>13</sup> During physical exercise its concentration in plasma increases.<sup>14</sup> When compared with the perhaps 10-fold increase in plasma NE during such conditions<sup>15</sup> a 2-fold increase in DBH concentration would seem to indicate that the two granule constituents are released by different mechanisms. In the case of DBH the release presumably is some kind of exocytosis, allowing even high molecular compounds to escape directly from the granule. Although some NE could escape by the same process, the major part may pass through the membrane independently of the large molecules. Knowing that nerve granules have an efficient uptake-release mechanism,<sup>16</sup> it seems most plausible that the particles during the excitation process are “activated” and making contact with the axon membrane in the nerve terminal swelling, and transfer amines into the synaptic gap. An increased permeability of the membrane during the excitation wave is compatible with other observations. It is also well known that some of the transmitter is recaptured after release,<sup>17</sup> which would constitute a reversal of the process, perhaps to be compared with the two-way ion movements in membranes.

This kind of release procedure which would make the sophisticated release-uptake system in the granules more meaningful than simple extrusion by exocytosis—a mechanism which appears to be especially suitable for a bulk release from chromaffin cells—neither necessitates nor negates a quantal release.<sup>18</sup> It seems just as possible to assume that the “activated” granule empties its amine content by an all-or-none process, as to hypothesize that the release continues by a smooth dissociation process. The occurrence of miniature action potentials at adrenergic nerve junctions might, but must not, speak in favor of the former alternative.<sup>19</sup>

At any rate, reuptake of transmitter seems to be an intrinsic part of the transmission process,



and is commonly interpreted as an economy device,<sup>20</sup> at the same time serving as a mode of terminating the action.<sup>16</sup> Uptake of exogenous transmitter is also a fast and efficient process, as evidenced also by radioactive labelling of the stores.

The gradual refilling of stores by synthesis can be demonstrated *in vivo* after partial depletion. On stimulation of the lumbar sympathetic in the rabbit the reduction of blood flow in the hind limbs can be repeatedly observed at 1–2 minute intervals over hours. After pretreating the animal with the synthesis inhibitor decaborane, the effect of stimulation rapidly subsides, but after an increased interval it temporarily recovers.

Electron microscopic studies of the granules *in vivo* and *in vitro* after homogenization of adrenergic nerves and innervated tissues have revealed that these often occur in chains and with extensions suggesting a relationship to axonal structures.<sup>21</sup> Exact identification of the nature of single granules is, however, still not possible.

Recently two processes have been discovered which seem to play important parts in the regulation of adrenergic neurotransmission. One is concerned with prostaglandins of the E series, which exert an inhibitory action prejunctionally and thereby reduce the release of transmitter following nerve stimulation. This was first discovered on the perfused spleen<sup>22</sup> and subsequently demonstrated on the isolated guinea pig vas deferens<sup>23</sup> and other organs. This kind of effect may also be of physiological significance, since inhibition of prostaglandin formation in the organ by means of synthetase blockers, such as indomethacin or aspirin,<sup>24</sup> markedly increases both the mechanical response to electrical stimulation and the release of transmitter. Similar results have been obtained on the isolated heart.<sup>25</sup> It thus appears that PGE<sup>1</sup> or PGE<sup>2</sup>, which are produced and released during adrenergic nerve stimulation, act in an inhibitory way on transmitter release, thereby serving as modulators of transmission. In some instances this endogenous inhibitory action can be very marked.

The second mechanism owes its detection to some observations made with adrenergic blocking agents. As originally observed by Brown and Gillespie<sup>26</sup> dibenamine strongly increased the outflow of NE from the perfused spleen on stimulation. This was interpreted partly as inhibition of binding to effector cell receptors, partly as due to inhibited reuptake. However, the effect was not quantitatively compatible with these assumptions and it was later suggested that this and related compounds blocked an inhibitory alpha-action on transmitter release.<sup>27, 28</sup> This could be verified in different ways and in agreement with this concept alpha-agonists inhibit transmitter release. It might therefore be assumed that release of NE auto-

matically inhibits further transmitter release through this negative feedback system.

The question has also arisen whether NE is the transmitter in all organs with adrenergic nerve supply. Particular reasons to doubt this appear to occur in vas deferens of the guinea pig, and it has actually been questioned by Ambache and Zai.<sup>29</sup> The reasons are the following: Although vas deferens is rich in adrenergic nerves and NE, exogenous NE has only a weak stimulatory action on the effector cells. The nerve stimulus induced response is not blocked by addition of alpha-blockers such as phentolamine or PBA. Furthermore, addition of NE to the bath medium of an isolated vas often causes inhibition of the stimulus response. Indeed, after treatment of the isolated vas deferens with phentolamine the inhibitory action of NE on the twitch response is often further increased.

This inhibition can, however, be annulled by propranolol, indicating a beta-effect, and further analysis shows that butoxamine (but not practolol) removes the inhibition. It may therefore be concluded that NE has 1) a weak stimulatory alpha-effect on the effector cells, 2) an inhibitory alpha-effect on the transmitter release, and 3) an inhibitory beta<sub>2</sub>-effect on transmitter release. Although this pattern would not per se be wholly incompatible with the assumption that NE is the stimulatory neurotransmitter in the organ, the modest effects of this amine must be considered somewhat unsuited for the strong and vigorous contractions of this organ.

A large number of drugs have been used in the study of adrenergic neurotransmission in laboratory experiments. To what extent have these allowed clinically useful applications? As regards transmitter synthesis, various drugs have been applied in order to reduce the transmitter release in hypertension, such as alpha-methyl-dopa and decarboxylase inhibitors, with certain success. Reserpine prevents NE uptake in granules and slows down release of transmitter from granules but does not in small doses prevent synthesis. The newly synthesized NE is, however, rapidly destroyed, unless MAO is inhibited. This is reflected in the decreased output of NE in urine in patients after reserpine.

Considering the therapeutic application of adrenergic blocking agents, it is of interest that these compounds with few exceptions inhibit NE uptake and release from granules. On the other hand they enhance transmitter action by inhibiting reuptake and by removing alpha-agonistic inhibition of transmitter release.

Indirectly acting amines may elicit transmitter release either with therapeutic aims such as with amphetamine or accidentally by tyramine in certain types of cheese and wine.

To what extent metabolic inhibitors influence adrenergic neurotransmission *in vivo* is less well known, although such effects should be possible

to detect. As shown before, DNP increases NE release from the perfused heart.

Drugs such as MAO inhibitors do not strictly belong to this group since their action is on the inactivation side. As to the psychotropic drugs it is known that several of them influence the adrenergic transmitter system, but the action is often complicated by their own effects, such as for example with LSD.

Finally there is still room for finding new drugs which may specifically interact with different processes in the adrenergic system and be useful supplements or substitutes for those already existing. In addition, studies on the transmitter release may help to clarify such basic problem as transport of ions and molecules through membranes and the chemical transducers of nerve excitation.

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Tailbone pain may really  
be a pain in the neck . . .

## “Tract Pain Syndrome” Associated with Chronic Cervical Disc Herniation

SATOSHI KOBAYASHI, M.D., *Honolulu*

● *Pain or dysesthesia in the lower part of the body may be caused by the various pathological conditions of the spinal cord located much higher than the point where the sensory roots from the corresponding painful area enter the cord. Spinal cord trauma, neoplasms, degenerative lesions of the cord and various extramedullary lesions which exert compression on the spinal cord are described as the cause of such type of pain.*

The peculiar pain or dysesthesia in the lower part of the body, particularly in the sacral or coccygeal area or the lower limbs, caused by cervical disk herniation, is of special interest because of occasional difficulty in the recognition of this condition. In the differential diagnosis, one may be misled toward other conditions such as lumbar disc herniation. These are not unusual cases, but are rarely described in the literature.

Four cases of pain problems of the lower part of the body, undoubtedly due to the slight or mild compression of the spinal cord at the cervical level, are presented here, and clinical observation and etiological considerations are described. The author believes there are special features of the character of the pain and the causative pathological processes which could bring this condition to be considered a special clinical entity.

### Case One

G.S. is a 56-year-old white man who had an approximately 20-year history of pain in the neck and both arms with occasional difficulty in his balance as he walked. Flexion of his neck caused a shooting sensation in the lower back.

About four years prior to admission, he had the onset of burning pain in the sacral region and in both lower extremities, mostly in the lateral aspect of the thighs and the legs.

The pain in the lower back and sacral area and both lower limbs was particularly worse for a few months before he was first seen at our clinic. The past history was not significant other than for idiopathic atrial fibrillation. Neurological examination revealed slight but generalized muscle atrophy in both shoulder girdles. Weakness was noted in the extensor muscle group of the right wrist. Lhermitte's sign was positive and Romberg's sign was also positive. The examination of both lower extremities was not remarkable. Motor and sensory examination, deep tendon reflexes and straight leg raising were all normal. Aching and burning sensation in the sacral area and lower limbs had no radicular pattern. There were no sphincter disturbances.

Patient was admitted with working diagnosis of cervical disc herniation with myelopathy and lumbar disc herniation. Myelography revealed marked narrowing of the dye column at the L 4-5 level and narrowing and bar at the C 5-6 and C 6-7 level. (Fig. 1)

Because of the clearly demonstrable abnormality on the myelogram at L 4-5 and rather severe burning pain in the lower back and the lower limbs, lumbar discectomy at L 4-5 level was done bilaterally. The findings were compatible with chronic disc herniation. Herniated disc material was partly calcified. Disc space was narrow. By removing this material, complete decompression of the neural components was achieved at this level. Postoperatively, the symptoms were basically unchanged.

As soon as his postoperative condition became stable, the anterior cervical fusion of C 5-6 and

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FIG. 1—The myelogram of the cervical region of Case 1 shows severe narrowing of the subarachnoid space at the C 5-6 and C 6-7 levels. The horizontal band of defect in the contrast column at these levels indicates the degenerated discs and spur formation, impinging upon the spinal cord as well as on nerve roots on both sides.



C 6-7 with decompression of the cord and nerve roots were done. The findings at the second operation were of a fairly large amount of degenerative disc material impinging upon the spinal canal over the posterior longitudinal ligament. This was completely removed at both levels. Shortly after the cervical spine operation, the burning pain in the sacral region and both lower extremities completely disappeared. The shoulder and neck pain also disappeared in the very early days after the operation. He was discharged on the 5th postop day in very satisfactory condition. There has been no return of symptoms for over two years.

This was an interesting case from a diagnostic standpoint. The myelograph abnormality demonstrated at the L4-5 area was probably not a major factor in his clinical symptoms. There were no significant objective abnormalities in the examination of the lower extremities preoperatively. Nature of the pain was not typical of that caused by lumbar disc herniation. Symptoms were present rather symmetrically. An important observation was the continuation of pain after lumbar discectomy and abolishment of the symptoms shortly after the decompression of the cervical cord.

## Case Two

C.D. is a 39-year-old white man who complained of intense and continuous aching and burning pain in the tailbone and in both lower extremities, particularly in the calf and heel area. He also had pain in the neck, shoulders, inside the forearms and in the second and third fingers of both hands, and numbness in the 4th and 5th fingers of both hands.

These symptoms started about 1954, as he

strained while working underneath a car when the jack slipped. There was exacerbation and remission in his symptoms but they became generally continuous.

In 1967, when he fell at work, these symptoms were aggravated. Particularly the pain in the lower back and burning sensation of the coccygeal area became quite severe.

Neurological examination was objectively not significant except for positive neck compression test and slight hypesthesia of the medial half of both hands. In view of the long suffering with futile medical treatment, it was considered necessary to perform a myelogram. The study was limited to the lumbar area, and no abnormality was noted.

However, he continued to have symptoms and became more desperate. The patient was considered to be malingering because of few objective findings and normal lumbar myelography, with constant complaint of suffering.

Later it was felt that myelography of entire spinal canal was necessary because he had pain also in the shoulders and arms. The repeat myelography eight months later disclosed moderate ridging deformity at C 5-6 bilaterally. C 6-7 was also noted to be slightly degenerated, but not significantly so. (Fig. 2)

FIG. 2—Cervical myelogram of Case 2 shows horizontal band of the defect of the contrast column at the C 5-6 level. Bilateral filling defect of the root sheath is also noted in the C 6-7 level. The findings are consistent with degenerative disc herniation in these levels.



Anterior cervical fusion was therefore performed for C 5-6 disc space. The operative findings were of prominent impingement of degenerative disc and osteophytic material upon the posterior longitudinal ligament, which was com-



pletely removed; the cord was decompressed.

Immediately after the operation, the burning pain in the tailbone and aching in the lower extremities disappeared. There has been no return of such symptoms during 18 months followup after the operation. He was, however, recently involved in a further accident and developed typical symptoms of lumbar disc herniation with radicular pain in the lower limbs, but without burning pain of the coccygeal area. Subsequently, studies and the lumbar disc operation were done and the radicular symptoms have disappeared. There has been no return of the burning sensation of the tailbone area.

### Case Three

A.R. is a 46-year-old white man who had suffered some lower back pain of intermittent nature since 1955 or 1956, without any significant injury or strain. He was involved in an industrial accident in July, 1967, when the truck in which he was riding went over a dip, causing his spine to be jarred. About that time, burning lower back pain and burning lower abdominal pain started, becoming quite severe and persistent as time went by. Several months later, a rather intense neck pain started, radiating to both arms. There was numbness and paresthesia in the left arm and all the fingers of the left hand.

Except for the burning lower abdominal pain, there was nothing to suggest GI or urinary tract disorder. He had been consuming fairly large doses of analgesics.

Neurological examination showed moderate weakness in the left deltoid, biceps and brachioradialis and extensor muscles of the left wrist. Diffuse hypesthesia in the left arm and hand was noted. Neck compression test was positive. Biceps and brachioradialis reflex in the left arm was absent. These reflexes in the right arm were hypoactive. Sphincter function was normal. Motor and sensory examination, as well as deep tendon reflexes, were normal in both lower extremities. Mobility of the back and straight leg raising were normal. There were no long tract signs. There was no inguinal hernia or other local abnormality of the abdominal wall. Complete workup for GI and GU tract for lower abdominal pain revealed no abnormality.

The myelogram showed a marked defect at C 3-4 and C 5-6 but generalized degenerative discogenic changes were observed in the other disc spaces as well. In the cervical area, no normal sleeve pattern was observed in any roots between C2 and C6. (Fig. 3)

Anterior cervical fusion was done, choosing the two most severely involved discs, C 3-4 and C 5-6, based on myelographic findings. At the operation, quite remarkable degenerative disc

FIG. 3—The cervical myelogram of Case 3 shows a large defect in the contrast column at C 3-4 centrally and to the left. Less remarkable defect is noted at the C 5-6 level. Root sheaths are involved extensively in the entire cervical area bilaterally.



impingement on the posterior longitudinal ligament was noted. The spinal cord was decompressed at these levels.

Shortly after the procedure, the patient stated that the burning pain of the lower abdomen and the boring lower pain had completely subsided. For the follow-up period of over two years, he has been free of the burning pain in the abdomen and lower back. The radicular pain and paresthesia of the left arm and hand has decreased but still remained to some extent.

### Case Four

C.B. is a 51-year-old white woman who complained of burning pain from her waist down, including both lower extremities, hips and tailbone area, associated with discomfort and pressure sensation in the entire lower extremities. The burning pain or occasionally a boring pain in the tailbone and both hips was the most insistent symptom. She also had pain and numbness in both hands, especially in the first and second fingers of both hands.

The problems started in June, 1969, when she slipped in the rain and fell backwards hitting her occiput on concrete.

Neurological examinations were always unremarkable objectively, except for positive neck compression test and equivocal hypesthesia in both arms. Motor and sensory examination, as well as deep tendon reflexes, mobility of the back and lower back, and sphincter function were completely normal. The symptoms con-

tinued in spite of various medical and physical therapy. Because of more prominent complaints of "leg pain" or "tailbone pain," attention was directed to the investigation for possible pathological process in the lower lumbar or sacral region.

Lumbar myelograms were performed twice, showing no abnormality. The tendency was to consider this patient's symptoms as psychosomatic, because of lack of objective findings and normal lumbar myelograms, but most annoying burning sensation in the coccygeal area.

Cervical myelography was eventually carried out and showed a lateral defect at C 5-6 disc space, findings consistent with cervical disc herniation. (Fig. 4)

FIG. 4—Cervical myelogram of Case 1 shows smooth filling defect of contrast column at the C 5-6 level on the left side, obliterating the root sheath. This radiological finding itself is not necessarily indicative of the spinal cord compression, but clinically this was the cause for tract pain in the sacral region.



Anterior cervical fusion for C 5-6 was performed and the spinal cord and C 6 roots were completely decompressed bilaterally. The disc protrusion was quite remarkable and considerable impingement was noted upon the posterior longitudinal ligament bilaterally, but more severely in the left.

The burning sensation and paresthesia in the lower part of the body completely disappeared within a day after the operation. In nearly two years of follow-up, there has been no recurrence of the burning pain in the tailbone or hips.

**Discussion**

These four cases are of particular interest because of the characteristic pain, that is, the burning sensation or boring feeling in the lower

part of the body or lower limbs, particularly in the sacral area in three cases and lower abdominal area in one case. The pain was in or close to the midline, bilateral or rather symmetric in distribution in each case. Symptoms disappeared after decompression of the cervical cord with removal of herniated and degenerated cervical disc or osteophyte.

Laugfitt and Elliott<sup>8</sup> described three cases of aching and boring pain in the lower part of the body, caused by spinal cord compression at the cervical level. In one case, a meningioma at C 4-5 level was located dorsolaterally. Two other patients had degenerated discs obviously causing compression on the cervical cord. In these three cases, operative decompression of the cervical cord abolished the burning pain of the lower part of the body.

The author's four cases presented here were among 96 cases of cervical discogenic disease severe enough to be operated (4.2%). In the studies of 120 cases of cervical myelopathy by Clark and Robinson, dysesthesia and paresthesia in the lower limbs of undoubted cervical cord origin was noted in five cases.<sup>5</sup>

Bradshaw<sup>4</sup> studied 78 patients with spinal cord compression and cervical spondylosis. Eight had burning and poorly localized pain of the lower limbs.

O'Connell<sup>10</sup> noted tract pain in three cases out of eight cervical disc herniations.

Presented here is the peculiar type of pain in the lower part of the body due to cervical cord compression. Lesions which could cause this type of pain include cervical disc herniation,<sup>8</sup> spondylosis with osseofibrous ridge,<sup>11</sup> spinal cord trauma, intra or extramedullary tumors<sup>1,2,3,8</sup>, chronic infectious granulomata involving the spine or meninges of the spinal cord, or syringomyelia.<sup>1</sup>

Baker<sup>2</sup> states that sensory and motor disturbance due to pressure upon the funiculi of the spinal cord occur always in areas below the lesion and do not assume a radicular type of distribution but rather a "spinal cord lesion type."

From observation of author's cases presented here and of several other reported cases, it appears that there is a discrete clinical entity which presents with peculiar pain or dysesthesia in the lower part of the body or in the sacral distribution, caused by slight or mild cervical cord compression, particularly by chronic cervical disc herniation.

The character of the pain is burning, tingling, itching, stinging, aching, and crushing, and "pins and needles" sensation that resembles an aggravated paresthesia. Occasionally it is described as boring.<sup>2,8,12</sup> Because of longstanding problems, the patient may be addicted to narcotics. Medical treatment is often not helpful.<sup>2</sup>



Localization of the pain is inconstant, but usually diffuse in the lower part of the body, in or near the midline or sacral area. Often it is bilateral or nearly symmetrical in the lower limbs. The pain is not in the distribution of the nerve root or the peripheral nerve.<sup>8</sup>

Pain in the sacral region or "tail bone pain" without history of local trauma deserves special attention.

Pain is usually constant, though may fluctuate in severity. It occasionally is paroxysmal. It is not aggravated by sneezing or coughing or affected by the change of climate. Mechanical sign is absent, as is limitation of motion of the back. These are the important points in differential diagnosis from lumbar disc herniation. Neurological examination is often not remarkable.

Associated cervical radicular signs may be observed, such as neck pain or various sensory or motor disturbances of the shoulder girdles or upper extremities. However, the evidence of long tract involvement is usually lacking.

In other words, characteristic pain in the lower part of the body may be an early sign of spinal cord compression before long tract signs develop. Plain x-rays or myelogram usually show findings which could be the cause of compression of the higher spinal cord.

Most important among all is the fact that symptoms are relieved by effective decompression of the spinal cord. This fact indicates the nature of the lesion to be more an irritation of the spinal cord than a true lesion, and no irreversible change exists, usually.

### Pathogenesis

From observation of these cases and review of the literature, it appears that the sensory stimuli originate in the upper spinal cord where the irritation exists, and the pain is projected in the lower part of the body.

In what portion of the spinal cord the painful stimuli originate is a debatable subject. The pain may be due to irritation of the posterior column or to the pain fibers of the spino-thalamic tract. This clinical entity might be called "tract pain syndrome", since it is most likely due to chronic irritation of the spino-thalamic tract with no irreversible damage. In this stage of cord compression, the cord probably shows no demonstrable pathological changes. (The author has no autopsy cases, neither could any be found in the review of literature.)

Foerster<sup>6</sup> and Holmes<sup>7</sup> are of the opinion that a partial lesion of the cervical cord is the irritating factor which causes the characteristic pain. If the condition progresses, a demonstrable pathological abnormality can be identified microscopically or by physio-chemical means. Such

a lesion, perhaps irreversible, might cause a functional interruption of ascending or descending impulses instead of irritation, and long tract signs might develop.

It is widely recognized that referred pain of spinal cord origin, associated with trans-section of the cord, intramedullary tumor or syringomyelia, may similarly be due to irritation of the spino-thalamic tract at the marginal zone of the destroyed area which acts as an irritable focus, if the pain is not fixed more centrally.

White and Sweet<sup>13</sup> state that lesions within the substance of the cord may chronically irritate pain pathways. They observed the sensitiveness of the posterior column to mild tactile stimuli at the time of operation under local anesthesia. On the other hand, the electrical stimulation of the dorsal column to the wakeful patient does not create pain, but rather a buzzing sensation or paresthesia, referred distally.<sup>9</sup> Tract pain of posterior column origin is unlikely.

Baker<sup>2</sup> avers that projected sensation involving pain and temperature may be attributed to compression of the spino-thalamic tract. In the topographic arrangement of the pain fibers in the spino-thalamic tract, fibers from the sacral area pass anteriorly, thus being readily compressed or irritated by disc herniation or degenerative osteophytes, which always protrude anteriorly or anterolaterally against the spinal cord. Thus the tract pain syndrome, particularly with sacral pain due to spino-thalamic tract compression from chronic disc herniation, can be explained.

White and Sweet have described disagreeable testicular sensation after unilateral spino-thalamic cordotomy or medullary tractotomy. To explain this they postulate a few residual pain-transmitting fibers in the contralateral anterior quadrant. This would also explain the sacral pain or the pain of midline or symmetrical distribution in the tract pain syndrome.

In performing myelography in the patient with pain in the lower part of the body, it is important that the entire spinal canal, including foramen magnum, be visualized, unless contraindicated. This is particularly true for the patient who presents with atypical signs or symptoms of lumbar disc herniation.

Symptoms seemingly due to lumbar disc herniation may be the manifestation of pathological process higher in the spinal canal.

The patient who has disc herniation and degeneration in one area tends to have similar pathological changes in other areas of the back. Disc degeneration is generally a progressive change with advance of age, and a complete myelogram is of great help for later comparison.

Considering the risks related to the injection and occasional incomplete removal of dye, the taking of an additional few films should not be

curtailed, in order that the entire spinal canal may be studied.

The possibility of tract pain syndrome should be considered in treating a case of pain problems of the lower part of the body, particularly for those cases of sacral or tailbone pain.

### Summary

Burning pain in the lower part of the body, particularly the sacral or tailbone pain can be caused by compression of the cervical cord. This is not a rare occurrence, but little attention has been paid to it. Consequently, only a small number of cases have been reported. It seems

appropriate to call this clinical entity, tract pain syndrome. The author reports four cases of this syndrome. With several already reported cases, the characteristics, pathological and clinical features of this tract pain syndrome is discussed.

Generally, this pain is of a constant burning, aching or occasionally boring quality involving the lower part of the body bilaterally, symmetrically or in the sacral area in no root or peripheral nerve distribution. Neurological and radiological examinations are unremarkable except myelographic defect in the cervical spinal canal. Surgical decompression completely relieves the symptoms.

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## Documentation of Continuing Medical Education (CME)

Relicensure to practice medicine, and recertification as qualified to practice a specialty, are both now visible on the social horizon even if you're standing at sea level. They've been visible to members of licensing and certifying boards for the last 4 or 5 years at least. Now anyone can see them.

But they're pretty tough hurdles, and no one is anxious to be the first to jump over them—or to try to do it.

As a beginning step, and in the hope that it might prove ultimately to be a sufficient one, certification of efforts to keep abreast of medical advances—in short, of continuing medical education (“CME”)—is being undertaken. The AMA has done it for several years now by offering the Physician's Recognition Award. The California Medical Association is now offering its own state certificate of CME, and the AMA recognizes it. Hawaii has now been authorized to make its own determination of the quality of various postgraduate educational programs conducted by hospitals or medical organizations.

Approval means that a physician can receive

official credit toward the quality and amount of CME to which he has exposed himself, by recording the hours spent in the institution, or in meetings of the organization, so approved.

Approval so far rests upon the decision by a reviewing committee that the programs in question are soundly planned and presented, and meaningful in terms of their educational content. Ultimately, approval may well require demonstration, in addition, that the quality of medical care has been improved as a result of them: that, in the 4-D mnemonic of Dr. Richard Opfell of the CMA, Dissatisfaction, Discomfort, Disability, and Death have been diminished thereby; or that measurements of performance in hospital practice have improved; or both.

It seems likely that it will be a long time before any state or specialty board requires more than a specified amount of CME as a condition of relicensure or recertification (or maintenance of medical society membership) perhaps with voluntary self-assessment examinations.

H.L.A.

### PHYSICIAN RECOGNITION AWARDS

The American Medical Association, Council on Medical Education released names of Hawaii physicians who qualified for the Physicians Recognition Award between November, 1973 and June, 1974. They are:

#### County of Honolulu

Anastasi, Lorene Mary  
Andrew, David Johnson  
Arnold, Harry L.  
Arthur, Philip S.  
Baysa, Norberto  
Beck, Luther Clagett  
Benson, Homer R.  
Benson, Robert G.  
Canete, Danelo Roble  
Chang, Walter Yew Moo  
Chin, Jimmy Kek Vui  
Coleman, Bernice Evelyn  
Corboy, John Medford  
Coyer, William Frank  
Cunanan, Angel Castro  
Dusendschon, Raymond C.  
Edwards, John Wesley  
Edynak, Eugene Michael  
Fardal, Richard Wayne  
Faulkner, Gerald Dale  
Fong, Bernard W.D.  
Galinson, Richard Malvin  
Gallup, James Donald  
Giles, Frederick Lemuel  
Goldstein, Norman  
Goto, George  
Gulbrandsen, Christian L.  
Halpern, Gilbert M.  
Hartness, Alvin Hunter  
Hartwell, Alfred S.  
Henry, George Warren  
Ho, Edgar Chi Keung  
Hong, Pill Whoon  
Ing, Gordon Kim Chong  
Jacobs, Leonard Steven  
Kajlich, Aurel J.  
Kaku, Toshio Roy  
Kimata, George  
Kimata, Harold Tamaki  
Kressler, John Franklin  
Kubo, Katsuji  
Lehman, Carl William  
Leung, Ben T. Y.

Li, Fook Chiu  
Li, Gail Gar Lyai  
Luke, Lincoln K. W.  
Lumeng, James L.  
Maehara, Dennis Issei  
McCarthy, Mor James  
McNamee, Philip Irwin  
Milnor, John Champion  
Miura, Calvin Masaru  
Moore, Richard Dixon  
Mori, Victor Motojiro  
Niimi, Roy Nobuji  
Pang, Herbert George  
Pang, Lup Quon  
Pinkerton, Ogden Delmar  
Roy, Johnny Bernard  
Sakoda, Thos Hiroshi  
Sekaran, M. Raja  
Seto, Millard Soo-Lim  
Sia, Calvin Chia Jung  
Sol, Jeffrey Jos  
Tanaka, Kazushi  
Wall, Garton Evans  
Wang, Richard Keh Chin  
Watanabe, Henry K.  
Wong, Sidney Bow Won  
Yamada, Edward Y.  
Yeo, Choon Kia  
Young, Benjamin Bung Choong  
Young, Franklin S.H.

#### County of Maui

Cahill, Thos Gerald  
Dietrich, Donald E.  
Mirzai, Mahmood  
Percy, Helen S.  
Weeks, Bertram A.

#### County of Hawaii

Adams, Verne Lewis  
Boone, Wilmot B.  
Henderson, Robert P.  
Irvine, Robert Dailey  
Padwick, Michael John  
Park, Hoon  
Smith, De Witt Hendee

### HAWAII MEMBERS RE-ELECTED TO THE AAFP

The American Academy of Family Physicians has released names of Hawaii members re-elected prior to December 31, 1973. They are:

*continued page 392*



# May be the start of a better life for the epileptic

About nine out of ten epileptics suffer their first seizure in childhood.<sup>1</sup> Certain physical and psychic postseizure evidence—a badly bitten tongue, broken or dropped objects, amnesia, exhaustion—may suggest grand mal. Once the diagnosis of epilepsy has been established, *MYSOLINE (primidone)* may mean the start of a seizure-free life.

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**INDICATIONS:** MYSOLINE, either alone or in combination, is indicated in the control of grand mal, psychomotor, and focal epileptic seizures. It may control grand mal seizures refractory to other anticonvulsant therapy.

**PRECAUTIONS:** The total daily dosage should not exceed 2 Gm. Since MYSOLINE therapy generally extends over prolonged periods, a complete blood count and a sequential multiple analysis-12 (SMA-12) test should be made every six months.

**Use in pregnancy:** The effect of primidone on the human fetus has not been studied, and the benefit of administration of any drug during pregnancy must be weighed against any possible effect on the fetus.

Neonatal hemorrhage, with a coagulation defect resembling vitamin K deficiency, has been described in newborns whose mothers were taking MYSOLINE and other anticonvulsants. Pregnant women under anticonvulsant therapy should receive prophylactic vitamin K<sub>1</sub> therapy for one month prior to, and during, delivery.

**In nursing mothers:** There is evidence that in mothers treated with MYSOLINE, the drug appears in the milk in substantial quantities. Since tests for the presence of primidone in biological fluids are too complex to be carried out in the average clinical laboratory, it is suggested that the presence of undue somnolence and drowsiness in nursing newborns of MYSOLINE-treated mothers be taken as an indication that nursing should be discontinued.

**ADVERSE REACTIONS:** The most frequently occurring early side effects are ataxia and vertigo. These tend to disappear with continued therapy, or with reduction of initial dosage. Occasionally, the following have been reported: nausea, anorexia, vomiting, fatigue, hyperirritability, emotional disturbances, diplopia, nystagmus, drowsiness, and morbilliform skin eruptions. On rare occasion, persistent or severe side effects may necessitate with-

drawal of the drug. Megaloblastic anemia may occur as a rare idiosyncrasy to MYSOLINE (primidone) and to other anticonvulsants. The anemia responds to folic acid, 15 mg. daily, without necessity of discontinuing medication.

**DOSAGE AND ADMINISTRATION:** The average adult dose is 0.75 to 1.5 Gm. per day. The initial dose is 250 mg. Increments of 250 mg. are added, usually at weekly intervals, to tolerance, or therapeutic effectiveness, up to daily doses not exceeding 2.0 Gm. A typical dosage schedule for the introduction of MYSOLINE is as follows:

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<i>1st Week</i> 250 mg. daily at bedtime	<i>2nd Week</i> 250 mg. b.i.d.
<i>3rd Week</i> 250 mg. t.i.d.	<i>4th Week</i> 250 mg. q.i.d.

**In children under 8 years of age,** maintenance levels are established by a similar schedule, but at one-half the adult dosage. It is best to begin with 125 mg., with gradual weekly increases of 125 mg. a day, to a daily total usually between 500 mg. and 750 mg.

**In patients already receiving other anticonvulsants:** MYSOLINE should be gradually increased as dosage of the other drug(s) is maintained or gradually decreased. This regimen should be continued until satisfactory dosage level is achieved for combination, or the other medication is completely withdrawn. When therapy with this product alone is the objective, the transition should not be completed in less than two weeks.

MYSOLINE 50 mg. Tablet can be used to practical advantage when small fractional adjustments (upward or downward) may be required, as in the following circumstances: for initiation of combination therapy; during "transfer" therapy; for added protection in periods of stress or stressful situations that are likely to precipitate seizures (menstruation, allergic episodes, holidays, etc.).

**HOW SUPPLIED:** MYSOLINE Tablets—No. 430—Each tablet contains 250 mg. of primidone (scored), in bottles of 100 and 1,000. Also in unit dose package of 100. No. 431—Each tablet contains 50 mg. of primidone (scored), in bottles of 100 and 500. MYSOLINE Suspension—No. 3850—Each 5 cc. (teaspoonful) contains 250 mg. of primidone, in bottles of 8 fluidounces.

**References:** 1. Livingston, S., and Pruce, I.: *Pediatr. Ann.* 2:10 (Aug.) 1973. 2. Livingston, S., and Pruce, I.M.: *Drug Therapy for Epilepsy*, Springfield, Ill., Charles C Thomas, 1966, p. 23. 3. Scholl, M. L., in Conn, H. F.: *Current Therapy 1973*, Philadelphia, Saunders, 1973, pp. 675-7. 4. Metrick, S.: *C.M.D.* 37:49 (Jan.) 1970. 5. Forster, F. M.: *Med. Clin. North Am.* 47:1579 (Nov.) 1970. 6. White, P. T.: *Wis. Med. J.* 68:178 (Apr.) 1969. 7. Millichap, J. G.: *Drug Ther.* 1:15 (Oct.) 1971.

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**CONTRAINDICATIONS:** Hypersensitivity to antihistamines of the same chemical class. Dimetapp Extentabs are contraindicated during pregnancy and in children under 12 years of age. Because of its drying and thickening effect on the lower respiratory secretions, Dimetapp is not recommended in the treatment of bronchial asthma. Also, Dimetapp Extentabs are contraindicated in concurrent MAO inhibitor therapy.

**WARNINGS:** *Use in children:* In infants

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**PRECAUTIONS:** Administer with care to patients with cardiac or peripheral vascular diseases or hypertension. Until the patient's response has been determined, he should be cautioned against engaging in operations requiring alertness such as driving an automobile, operating machinery, etc. Patients receiving antihistamines should be warned against possible additive effects with CNS depressants

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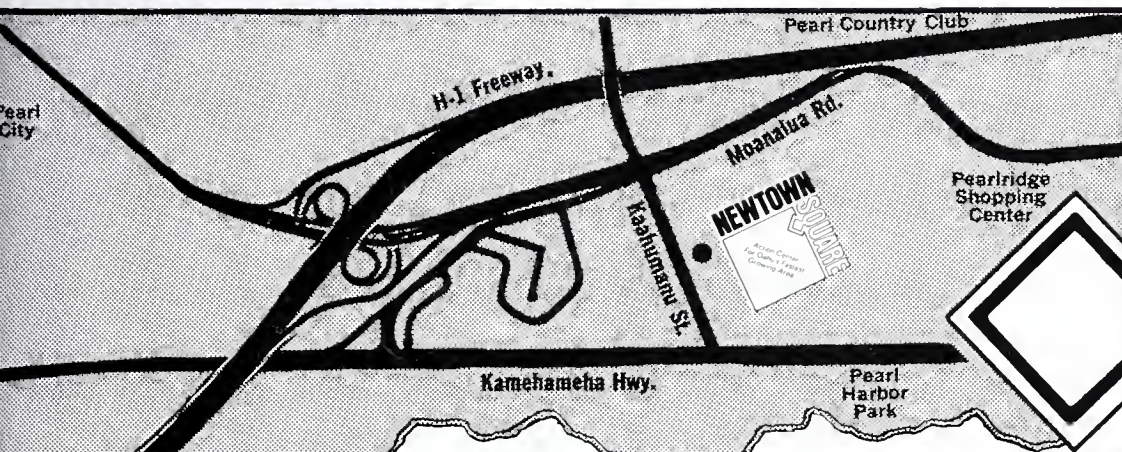
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## Announcements

### The Thirteenth Congress of the Pan-Pacific Surgical Association

To be held at the Hilton Hawaiian Village Hotel, Honolulu, Hawaii, February 15-21, 1975. For details write Cesar B. DeJesus, M.D., Pan-Pacific Surgical Association, 236 Alexander Young Building, Honolulu, Hawaii 96813.

### Family Planning

Physician Education Program in Family Planning at University of California, Los Angeles. Five day intensive seminar December 2-6, 1974. Repeat seminar during April 21-25, 1975. For

additional information and application forms, please contact Irvin M. Cushner, M.D., Ob/Gyn Department, UCLA Center For Health Sciences, Los Angeles, California 90024.

### Diving Medicine

Offered by the University of Hawaii School of Medicine, February 22-March 1, 1975. For details write Richard H. Strauss, M.D., Course Director, Associate Professor of Physiology, Physician for University Diving Activities, University of Hawaii, 1960 East-West Road, Honolulu, Hawaii 96822.

### Hawaii Region

#### American College of Physicians Call for Abstracts

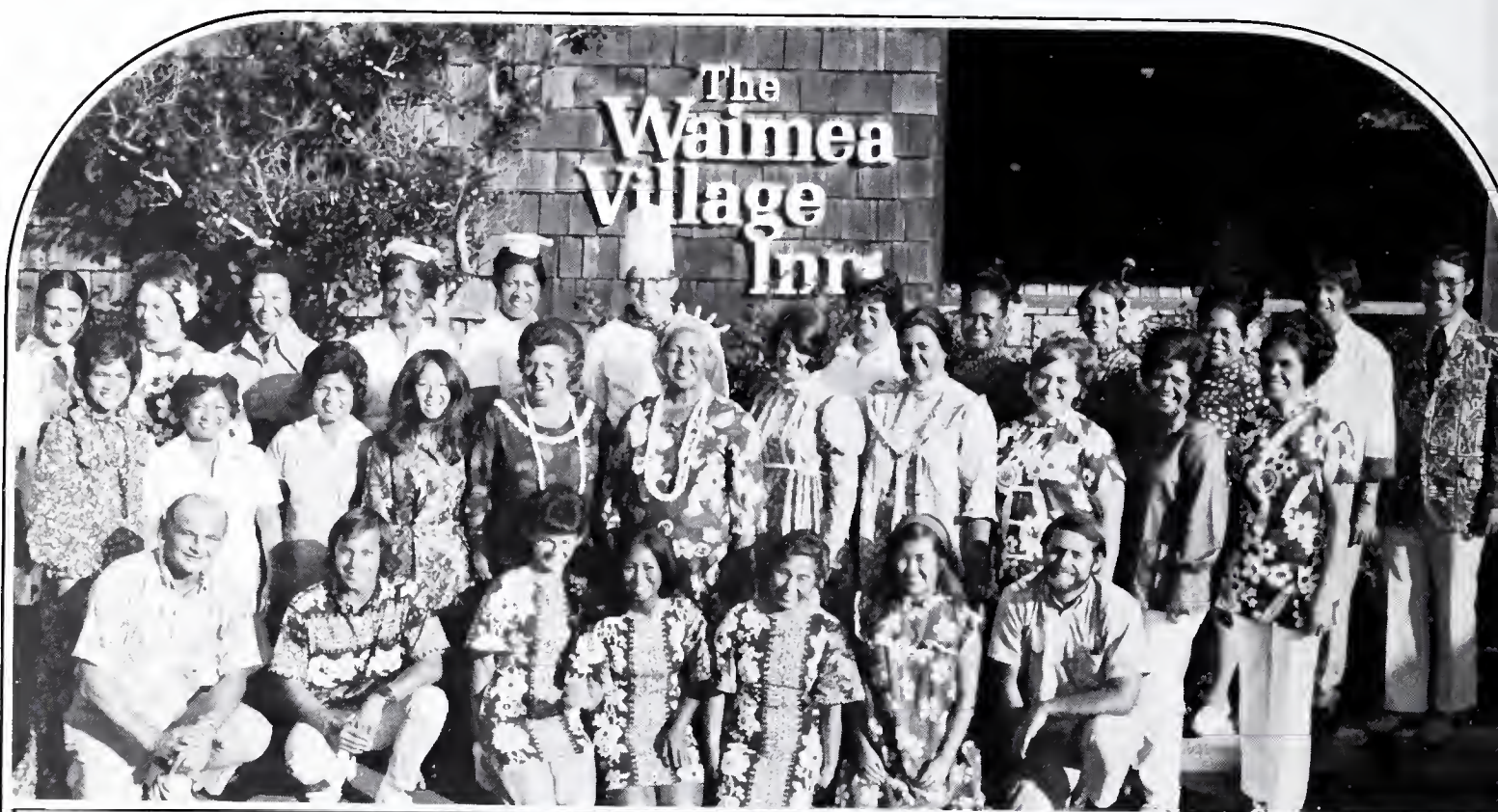
The Regional Meeting of the American College of Physicians will be held on April 12, 1975, in Honolulu.

Physicians, nurses, house-officers, and students of medicine and the allied health sciences are invited to participate.

Abstracts (250 words or less) of papers to be considered for presentation may be submitted to: Charles K. Tashima, M.D., Chairman, Scientific Program, St. Francis Hospital, 2230 Liliha St., Honolulu, Hawaii 96817.

There are no restrictions as to content.

Deadline for receipt of abstracts: December 2, 1974.



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<sup>1</sup> Demeulenaere, L.: Action du R 1132 sur le transit gastro-intestinal, Acta Gastroent. Belg. 21:674-680 (Sept.-Oct.) 1958.

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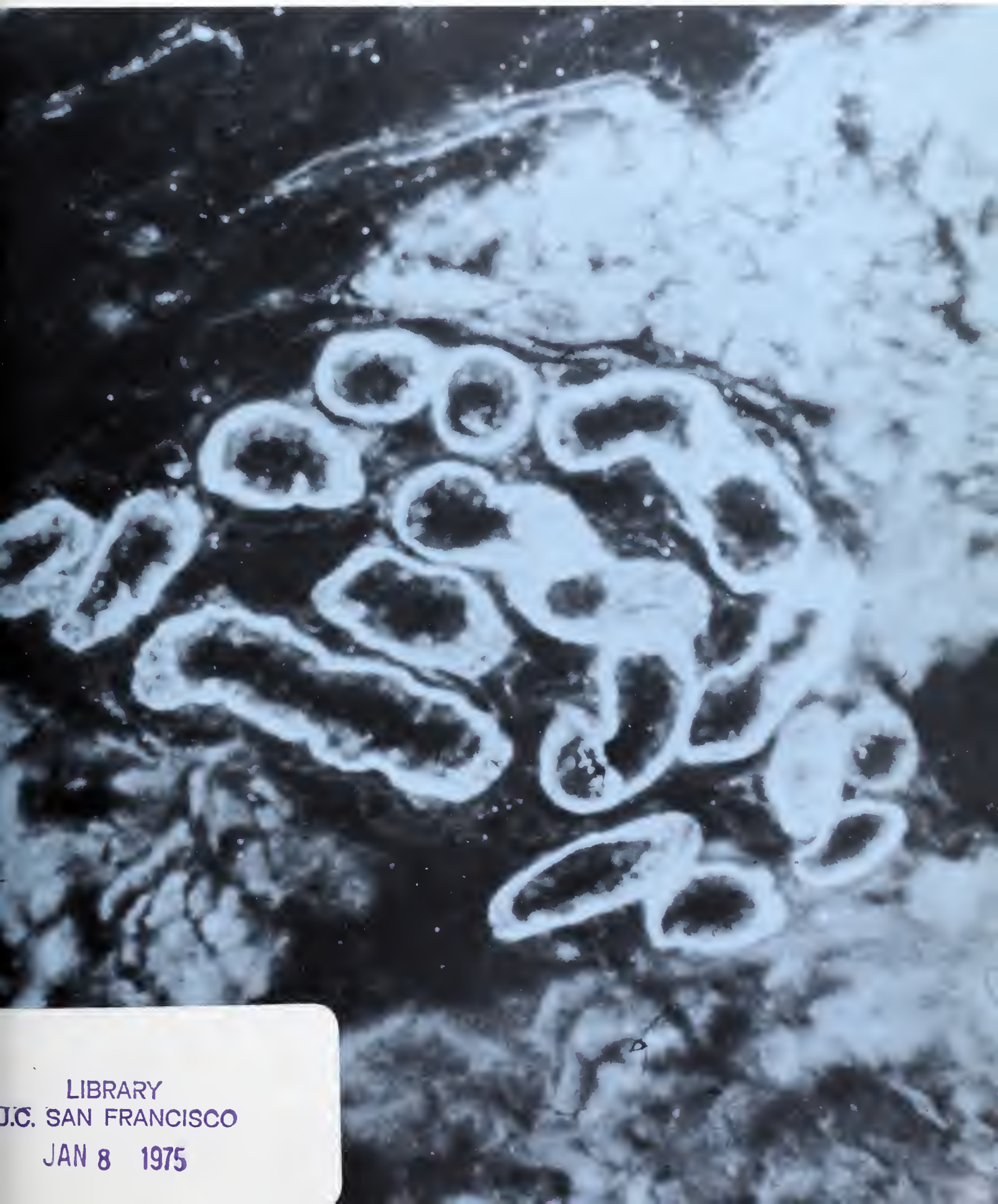




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For further information on this subject, the following references are provided:

1. Henry BW, *et al*: *Dis Nerv Syst* 30:675-679, Oct 1969.
2. Hollister LE, *et al*: *Arch Gen Psychiatry* 24:273-278, Mar 1971.
3. Claghorn J: *Psychosomatics* 11:438-441, Sept-Oct 1970.

surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of child-bearing age, weigh potential benefit against possible hazard.

**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies.

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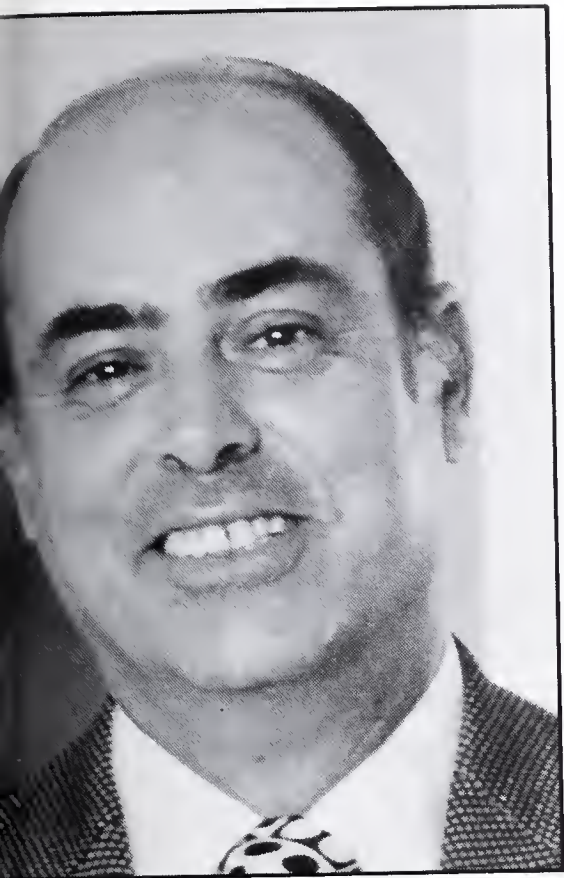
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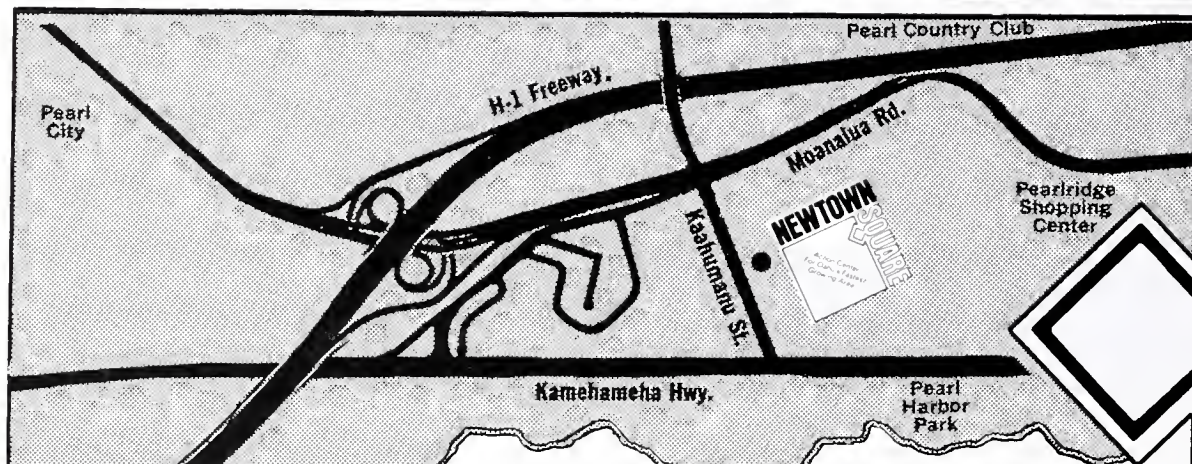
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## A Report of Over Four Years of Experience in Hawaii

# Methadone for Heroin Addiction

WALTER B. QUISENBERRY,\* M.D., *Honolulu*

A methadone treatment program to help heroin addicts overcome their craving for the drug was started in Honolulu in March, 1969. A preliminary report was made on this program at the Hawaii Regional Meeting of the American College of Physicians, April 5, 1971.<sup>1</sup>

Addicts selected for the methadone program by the John Howard Association were admitted to the Hawaii State Hospital for withdrawal from heroin, and were started on daily oral doses of methadone. After two weeks, they were discharged and referred to the outpatient department of the Queen's Medical Center for daily single oral doses of methadone. At present, addicts are not hospitalized before being started on methadone.

This program has been sponsored jointly from the beginning by the John Howard Association and the State Department of Health in a mutually satisfactory arrangement. Funding of the project has been largely by the State of Hawaii, client fees, and some independent private sources.

Governor John A. Burns on December 22, 1972, designated the State Department of Health as the authority to coordinate programs between the state and federal governments in the registration, approval, and control of methadone treatment.<sup>2</sup>

Early in the program, the John Howard Association set up a Methadone Advisory Board, which has been chaired by a physician. A representative of the Department of Health serves on this board.

### Program Objective

The goal of this program has been rehabilitation of heroin addicts.<sup>3</sup> The intent is to help addicts: 1) achieve a drug-free lifestyle (including freedom from methadone); 2) develop self-respect and realize their potential as human beings; 3) increase their productivity through work and education, 4) care for themselves and their families. Above all, they need to learn to deal constructively with problems of daily living; in other words, mature and grow up.

In compliance with regulations established by the Federal Food and Drug Administration, our methadone program accepts for treatment only persons who:

1. are 18 years of age or older,
2. have had minimum of two years' addiction to heroin,
3. have failed in at least two previous detoxification attempts.

### Intake Procedure

The applicant must contact the methadone supervisor and complete an application form. He is then interviewed by a counselor who takes a complete social history.

The medical director interviews and evaluates all applicants, after which the clinical committee decides on admission or referral to another appropriate program. (The clinical committee is composed of the medical director, methadone supervisor, counselor, clinic nurse, and appropriate consultants.)

If the applicant is living with a person using narcotics, that person must also take treatment, or the applicant will not be allowed to take home methadone on weekends and holidays.

Presented at the Regional Meeting of the Hawaii Chapter of the American College of Physicians, February 25, 1974.

\*Director of Health, Hawaii State Department of Health



Applicants wishing to transfer from other programs are not accepted until all medical, psychiatric, and performance records are received and evaluated by the clinical committee, at which time transferring client's program will be notified.

Clients who have left the program voluntarily may seek readmission. Such reapplications are handled in the same fashion as new applications. Clients discharged from the program may reapply after three months, repeating the entire screening process. If an ex-client left the program with payments in arrears, a realistic contract for repayment, as well as payment of the current account, must be arranged with the methadone supervisor, and strictly adhered to.

### Urine Testing

Methadone program participants must void an ounce or more of urine in the presence of an attendant at each clinic visit. Catheterization (on a voluntary basis) may be necessary in case of urinary retention. Failing this, the day's dosage will be withheld and take-home privileges suspended.

The urine is tested for methadone and unauthorized drugs. The presence of unauthorized drugs in the client's urine (or absence of methadone in the urine of a client receiving methadone) evidences a serious violation of program regulations. Repeated violations may result in expulsion from the program. Results of urinalyses are reviewed on a weekly basis by the clinical committee.

### Total Patients Treated

From the beginning of the program until December 31, 1973, 152 men and 43 women had been treated, a total of 195. Of these, 133 had only one admission to the program; 46 had two admissions; 15 had three admissions, and one has been admitted four times. Times between admissions varied widely. (Table 1)

TABLE 1.—*Total Patients Treated from Program Inception. March 24, 1969 to December 31, 1973*

195 PATIENTS (43 female + 152 male)	
1 admission	133
2 admissions	46
3 admissions	15
4 admissions	1
TOTAL	195

Of the 45 patients on the program in late 1973, 12 were women and 33 were men. Of these, 32 had one admission to the program, 11 had two admissions, one had three admissions and one had four admissions. (Table 2)

Six of these 45 patients had been on the program for less than 3 months, 16 from 3 months to 1 year, seven from 1 to 2 years, and 16 from 2 to 5 years. (Table 3)

TABLE 2.—*Status of Patients on Program. (December 31, 1973)*

45 PATIENTS (12 female + 33 male)	
1 admission	32
2 admissions	11
3 admissions	1
4 admissions	1
TOTAL	45

TABLE 3.—*Length of Time Patients Have Been on Program.*

Less than 3 months	6
3 months-1 year	16
1-2 years	7
2-5 years	16
TOTAL	45

Of the 45 patients reviewed, 25 were employed, one was a student, seven were housewives, and 12 were unemployed. (Table 4) Of the 12 unemployed patients, 11 had been on the program less than one year, and the twelfth had liver disease and was unable to work.

TABLE 4.—*Occupational Status of Patients.*

Employed	25
School	1
Housewife	7
Unemployed	12
TOTAL	45

### Methadone Dosages Per Day

One patient reviewed received under 20 mg per day, 10 received 20-39 mg, 12 received 40-59 mg, 12 received 60-79 mg, and 10 received 80-99 mg per day. The average dosage has been between 40 and 80 mg per day. (Table 5)

TABLE 5.—*Methadone Dosages of Patients (Per Day).*

Under 20 mg.	1
20-39 mg.	10
40-59 mg.	12
60-79 mg.	12
80-99 mg.	10
TOTAL	45

No correlation can be seen between methadone dosage and the length of time a patient has been on the program. All addicts are started on 10 or 20 mg per day, and the dosage is adjusted as necessary to suppress the craving for heroin. The dosage seems to depend on the motivation and maturity of the person.

### Status of Former Patients

Of the 150 patients no longer on the program at the end of 1973, 20 were in treatment elsewhere, 14 in prison, 25 re-addicted, 15 doing well, 9 dead, and 67 lost to follow-up.<sup>4</sup> (Table 6)

Only 15, or approximately 8%, of the 195 patients who had been treated in the program were off methadone, drug-free and known to be living normal lives as housewives, students, and workers in various occupations.

TABLE 6.—Status of Patients No Longer on the Program.

In treatment elsewhere	20
Prison	14
Re-addicted	25
"Drug-free"	15
Dead	9
Unknown	67
TOTAL	150

Physician Participation

A physician may participate in the methadone treatment program in the following ways:

- 1. as sponsor of a program.
- 2. as medical director of a program.
- 3. by being medically responsible for prescribing, dispensing, or administering methadone.
- 4. by providing other medical services. These services may be performed at the program site or at an affiliated institution, such as a hospital.
- 5. by being authorized by the program sponsor to operate as a "Methadone Treatment Medication Unit."

The medical responsibilities of a physician in a methadone program, whether he serves in a full-time or part-time capacity, are the same as would exist in any type of medical practice; that is, he is held professionally, legally, and ethically responsible in his practice of medicine with drug-dependent patients.

A private practitioner who becomes a program sponsor must provide the full range of comprehensive services. Supportive services may be made available through documented contractual agreement with other organizations and institutions. The staffing pattern for this type of program must meet the same require-

ments as those that govern all other programs. It is also his responsibility to see that the patient receives the requisite medical and social rehabilitative services.

Detoxification treatment can be provided drug-dependent patients in an approved hospital on an inpatient basis without filing an application as program sponsor for a methadone treatment program.

Temporary maintenance treatment can be provided in an approved hospital to a drug-dependent patient who is hospitalized for a medical condition other than drug dependence, and who requires methadone maintenance in order to prevent problems of acute withdrawal.

In Hawaii, methadone is available only on Oahu. No neighbor island hospital pharmacies have applied to stock it. Physicians may prescribe methadone as an analgesic in severe pain; however, the dispensing pharmacy must submit the name of a practitioner prescribing methadone, and the physician must sign a statement for the pharmacy indicating that methadone is being used for analgesia.

Summary

The goal of the methadone treatment program in Hawaii is to help heroin addicts become drug-free. The program has been jointly sponsored by the John Howard Association and the State Department of Health. Only fifteen (8%) of 195 patients who have been treated in the program are drug-free (including methadone-free). Many have been and are being helped on methadone maintenance, in that they are more productive than while on heroin, and they no longer must steal or commit other crimes to support their habit.

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1. Quisenberry, WB, Mertz, A: Alcohol and Drug Abuse in Hawaii, *Hawaii Med J* 30: 383-385, 1971.

2. Federal Drug Administration Compliance Program Guidance Manual, July 6, 1973, pg. 3.

3. Methadone Treatment Program Standard Operating Procedures adopted August 21, 1973 by the Methadone Advisory Board.

4. Previously unpublished clinic reports from the John Howard Association of Hawaii and the Hawaii State Department of Health.

5. American Medical Association memorandum of June 11, 1973 regarding Methadone Treatment Programs—FDA Regulations, pg. 7-8.



# A Systematic Approach To Sleep Disorders: Review and Treatment

J. DAVID KINZIE, M.D., and RICHARD MARKOFF, M.D., *Honolulu*

● *Sleep disorders, including insomnia, sleeplessness, bad dreams, and inability to feel rested in the morning, are some of the most common and difficult disorders for the physician to manage. The purpose of this paper is to provide some current information about sleep disturbances and to present a guide for treatment.*

The prevalence of sleep disorders varies in different populations. In a study of nursing and medical students, it was found that about 20% of this "normal" population had sleep disturbances.<sup>1</sup> Nursing students reported more difficulty than medical students. A report on the sleep habits of male medical and surgical patients at home indicated that these patients slept about as much as the general population.<sup>2</sup> However, long-term sleep disturbances were associated with increased age, ischemic heart disease and neurotic illness.

In a study at a medical outpatient clinic in Honolulu, 71 of 150 patients (46%) reported often having one or more forms of sleep disorder:<sup>3</sup> difficulty falling asleep, 29%; troubled sleep throughout the night, 25%; early morning awakening, 21%; and bad dreams or nightmares, 10%. More than half of those with sleep disturbances (41 out of 71) were rated as depressed on the Zung self-rating scale.

## Trouble With Anger

In studying chronic insomniac patients, Kales and Gary<sup>4</sup> have found a high degree of psychological disturbance. Out of 200 subjects, 85% had pathological scores on one or more MMPI scales. The most frequent abnormalities were on the scales measuring depression, sociopathy, obsessive-compulsive features, and schizophrenic trends. (The last-named scale may reflect identity confusion, fearfulness, and schizoid features,

especially among younger subjects). These authors were struck with the difficulty insomniac patients have in expressing or in controlling their aggressive feelings. Frequently, they repress feelings of anger or hostility, but in some situations act out their anger in uncontrollable fashion.

Patients with sleep disorders often see their difficulties in completely somatic terms. Often, they expect or demand a new or different drug to cure their disorder. Many times, this has been met with prescriptions for medication which may be addicting. Indeed, abuse of alcohol, over-the-counter medications or prescription drugs is one of the common problems encountered in this group. Cultural factors may aggravate this problem; patients from some ethnic or socio-economic groups tend to have difficulty expressing psychological disturbances in any but somatic terms. Thus, depression or anxiety may be expressed as, "I had a poor night's sleep," or "didn't sleep well;" "can't you do something about my sleep, doctor?" Quite out of their awareness may be the interpersonal or other problems which have been affecting their sleep patterns. The insistent demand for relief of sleep disturbance can present a real diagnostic and therapeutic challenge to the physician.

## Biological Aspects of Sleep

Recent work has established that there are two distinct forms of sleep. Rapid Eye Movement (REM) sleep is characterized by conjugate deviation of the eyes, generalized skeletal muscle inhibition and irregularities in a number of autonomic functions. Dreaming occurs predominantly, but not exclusively in REM sleep.<sup>5</sup> Non-REM (N-REM) sleep is often divided into four stages of sleep depth on the basis of EEG

TABLE 1.—*Various stages of sleep*

	EEG	% TOTAL TIME	REMARKS
N-REM SLEEP	Stage I low voltage; mixed frequencies	5	easy awakening
	Stage II 12-14 per sec. "sleep spindles"	50-55	moderately easy awakening
	Stage III higher voltages generalized slowing	10	more difficult awakening, slow pulse, Resp. BP lowered
	Stage IV high voltage 1-3 per sec. waves	10	greatest difficulty in awakening; confusion (brief) upon being roused. Slow pulse, lowered BP, slow resp.
	REM Sleep similar to Stage I of N-REM	20-25	variable BP, pulse, resp; generally higher than in N-REM. Higher O <sup>2</sup> consumption. Penile erection.

criteria and ease of awakening. Table 1 summarizes many of the relevant details.

REM sleep normally comprises a fairly stable fraction of total nightly sleep. There is little variation with age during the years of maturity (20-60). Very deep N-REM sleep (Stage IV), is considerably decreased in the elderly.<sup>6</sup> There is evidence that in the aged, both the amount of REM sleep (and age itself) is correlated with the performance scores on the Wechsler Adult Intelligence Scale (WALS).<sup>7</sup> This is an important point of consideration in prescribing medication for sleep in the elderly. REM periods tend to occur regularly throughout the night, generally at a frequency of once every 100 minutes. However, the length of the REM period increases from 5-6 minutes for the first one, to 30-60 minutes for the last one of the night.

Recent studies suggest that catecholaminergic mechanisms may be responsible for REM sleep, while serotonergic mechanisms may be involved in N-REM sleep. These studies have implicated the tegmentum of the pons, and the diencephalon, as the areas controlling the sleep-waking cycle, at least in some non-human species.<sup>8, 30</sup>

On the basis of psychological studies with long sleepers and short sleepers, Hartman<sup>9</sup> indicates that there may be two different requirements for sleep: a constant requirement for slow wave sleep, and a separate and different requirement for REM sleep that may be dependent on the individual's personality and life style. It is very probable that REM sleep is required to maintain normal mental and emotional functioning. Individuals differ markedly in their REM and slow wave (N-REM) sleep requirements, and this may be reflected in sharp differences in total sleep requirements. It has been shown that some poor sleepers have a specific problem with sleep that can be shown by EEG. Karacan et al<sup>11</sup> believe that insomniacs have basically an intro-sleep defect rather than deficiency in the amount of sleep, and this probably reflects a specific deficiency of deep or slow wave (Stage IV) sleep in these individuals.

### The Effects of Drugs

Drugs, especially hypnotics, may profoundly affect sleep patterns, in a manner having considerable clinical significance, suppressing REM sleep. This suppression is often followed by an increase in REM, "REM rebound," when the drug is withdrawn. The rebound may be accompanied by unpleasantly vivid and detailed dreams, which in turn may lead to rapid return to the use of the hypnotic drug.<sup>12</sup>

Table 2 summarizes some drug effects on REM and Stage IV sleep.<sup>13, 14</sup>

Chlorpromazine (Thorazine) has a dose-related effect on sleep. An h.s. dose of 100 mg has a depressant effect on REM, while 25 mg has an enhancing effect. Chlorpromazine does not produce a REM rebound on withdrawal, and this may correlate with the absence of a clinical abstinence syndrome. Clinical studies show that chlorpromazine given at bedtime produces a marked increase in sleep time, and REM time increased in proportion to total sleep.<sup>16</sup>

Other psychotropic drugs also effect sleep significantly. Monoamine oxidase-inhibiting antidepressants may totally suppress REM sleep at ordinary doses. Tricyclic antidepressants, such as imipramine (Tofranil) reduce REM sleep, but this effect lessens during a month of drug administration. Nevertheless, REM rebound may persist for a month after the drug is discontinued. Imipramine and other tricyclics may increase intra-sleep restlessness, although doxepin (Sinequan), the most sedative of this class of drugs, reduced such restlessness.<sup>17</sup>

It has been reported by Oswald<sup>18</sup> that most of the drugs that can cause dependency, such as amphetamines, methylphenidate, barbiturates, alcohol, and opiates, produce REM rebound upon withdrawing. When these are withdrawn, anxieties rise, sleep is broken, dreams are unsatisfying and there are frequent nightmares. This may lead to a pattern of increased drug use to prevent these symptoms. Marijuana, as well as alcohol, suppresses REM sleep; unlike alcohol, however, it increases slow wave sleep. The



TABLE 2.—*Effects of Hypnotic and Sedative Drugs*

	REM SLEEP		STAGE IV SLEEP
	unchanged	decreased	decreased
<b>BARBITURATES</b>			
secobarbital (Seconal)	100 mgm		
pentobarbital (Nembutal)	100 mgm		
phenobarbital			10 mgm
<b>NON-BARBITURATE SEDATIVES AND HYPNOTICS</b>			
ethchlorvynol (Placidyl)	500 mgm		500 mgm
glutethimide (Doriden)	500 mgm		
methypylon (Noludar)	300 mgm		
methaqualone (Quaalude)	300 mgm		
diphenhydramine (Benadryl)		50 mgm	
flurazepam (Dalmane)	30 mgm		30 mgm
chloral hydrate	500,1000 mgm		10 mgm
chlordiazepoxide (Librium)	50 mgm		

REM sleep suppression with marijuana is long-lasting and is followed by rebound, as with other REM-depriving drugs.<sup>19</sup>

A recent paper<sup>2</sup> has emphasized the ineffectiveness of chronic hypnotic drug use. Chronic insomniacs who regularly took hypnotic drugs were found to have as great or greater difficulty falling asleep or staying asleep than insomniac controls who were not taking medication. In addition, the drug users demonstrated a significant decrease of REM.

### Sleep Disorders and Mental Illness

Anxious or depressed people of either sex, and of all ages and social classes, frequently report a wide variety of sleep disturbances. These include difficulty falling asleep, decreased soundness of sleep, frequent nighttime awakenings, and early morning awakenings.<sup>1</sup>

It is in depression that sleep disorders have been most thoroughly studied, and most investigators have indicated less sleep and more wakefulness in depressed patients than in controls. The most consistent finding has been the lack of Stage IV sleep among depressed patients.<sup>21</sup> Additional studies<sup>22</sup> have shown depressives to have more rapid onset of initial REM periods, heightened REM intensities, and shorter intervals between REM periods. These are interpreted as marked compensatory REM rebounds. The REM-suppressing effect of antidepressant drugs may be of therapeutic significance.<sup>27</sup> Further studies<sup>23</sup> indicated that depressed patients tend to have a greater frequency of sleep disturbance than nondepressed, and those with the primary diagnosis of depression showed an increase in symptomatology following multiple night sleep disorders.

The data for other psychiatric conditions are not so conclusive. During the acute psychotic phase, schizophrenics experience a severe disruption of sleep over a period of many nights. Clinical improvement is accompanied by the re-

organization of sleeping patterns and remission of sleep disturbance.<sup>24</sup> Physiological indices of anxiety, such as hand tremors, sweaty palms, palpitation, shortness of breath, were found to be positively correlated with frequent awakening, in a normal population.<sup>1</sup>

Sleep disorders have been broadly classified into two types by Detre and Jerecki.<sup>25</sup> One type includes patients who are generally younger with prominent clinical features of anxiety or excitement, and the most obvious type sleep disturbance is difficulty falling asleep. This may occur in schizophrenic or manic episodes, and in atypical depression. The other type is exemplified by a typical depressive disorder. The most striking clinical features are sadness and psychomotor retardation; the patient is usually over the age of 40, and generally has the early awakening type of sleep disturbance. The former type generally progresses and remits quickly; the latter tends to develop and recede more slowly. Neurotic patients may have either type of disturbance. The difficulty-in-falling-asleep pattern, as well as schizophrenic sleep disturbances, tend to respond better to sedatives and antipsychotic agents, while those with early morning awakening respond best to antidepressants.

### Acute and Chronic Sleep Disorders

It is important, first of all, to distinguish between sleep disorders which are, of acute or recent origin, and those which are chronic. Almost without exception, recent, or acute sleep disorder will be found to be secondary to some change in physical health, or to some psychological or environmental factors. Treatment should be aimed at these primary problems. Direct treatment of the sleep disorder with hypnotics or sedatives may be given in conjunction with such etiologic treatment, but should not be substituted for it.

A sleep disorder may persist for as long as several weeks after the influence which caused it has ceased to operate, even though no new factors have arisen to maintain it. The autonomous persistence will usually correct itself if no treatment is given. It is generally unwise to prescribe hypnotic or sedative drugs in such a situation.

Chronic sleep disorder often presents a different problem, in that it may appear to be independent of such factors as have been mentioned above. In most of these cases, the patient has been regularly treated with hypnotic or sedative drugs, and this treatment may contribute significantly to the persistence of the sleep disorder. As has been already pointed out, many hypnotic, sedative and tranquillizing drugs suppress REM sleep and may produce an unpleasant rebound effect.

The appearance of the REM-rebound symptoms each time the patient attempts to discontinue the drug may lead him to report that his sleep disorder is still present and to resume medication. Drugs which produce some "hang-over" effect in the morning may cause patients to report that their sleep is unrestful or of poor quality. Drugs which suppress Stage IV may produce lighter sleep with more intra-sleep disturbance.

Either of these developments may lead both patient and doctor to conclude that the original sleep disorder is continuing, and that continued treatment is necessary. A self-reinforcing and regenerating cycle may thus be produced and maintained.

There are, of course, other chronic sleep disorders which are maintained by long-standing anxiety or depression. These are the chronic analogues of the acute sleep disorders discussed above, and treatment must be directed at the primary factors. Among this group are some patients who exaggerate the severity and constancy of their sleep disorders. These patients have other symptoms, eg, fatigability and listlessness, which may in fact be directly referable to their chronic, emotional problems, but which lead them to infer that they must be sleeping poorly. They then treat the inference as fact in reporting to their physicians. Such people are often those for whom "a good night's sleep" is the *sine qua non* of health—as is bowel regularity for others—and they are likely to react very strongly to even a mild sleep disorder. Their histories are often somewhat vague as to details of the sleep disorder, and their complaints often center about the poor or unrestful quality of their sleep.

### Evaluation and Treatment

The first step in evaluation is to make sure that a sleep disorder is actually present. This is done by obtaining a detailed history of the sleep disorder. When this is vague—especially in apparent chronic insomnia—and when the complaints are largely subjective and center on the feeling of having slept poorly, one should consider the possibility that the patient may be exaggerating the sleep disorder, and may actually have other problems.

A "sleep log" such as is pictured in Figure 1, which the patient and/or a family member may keep for several nights, may be useful in deciding upon this point, as well as in characterizing the disorder. The log should be kept for at least three nights, including at least one weekend night. It is best that the doctor, rather than the patient, select the nights to be sampled.

The full descriptive history should cover such areas as: the regularity of the patient's sleep

habits (when he retires and arises); what he does and whether he relaxes before bed-time; how much he exercises; the nature of onset, and the duration, of his sleep disorder; its character (broken sleep, early awakening, difficulty in falling asleep, unsatisfying or unrestful sleep, bad dreams, etc.). Early awakening is of special significance in that it strongly suggests the presence of a depressive illness. The other varieties of sleep disturbance are less specific.

Environmental and situational factors should next be inquired into, especially if the sleep disorder is acute or recent. Questioning should cover: use of stimulant drugs; too much exercise before bed-time (and too little during the day); irregular sleep hours and habits; work, marital and sexual problems, and changes in ambient noise. External events which have powerful emotional implications—such as loss of a member of one's family, or serious financial reverses—may be important.

Physical and mental illnesses are important. Ischemic heart disease, cardiopulmonary disorder with dyspnea, painful conditions and senile brain disease are especially prominent in the physical category.<sup>26</sup> The mental or emotional illnesses one needs to be particularly concerned about are depression, anxiety states, schizophrenia.

Depression, as noted above, tends to be characterized by early morning awakening. However, there may be troubled sleep throughout the night. Frequently, there is diurnal mood variation, with the most intense depression in the morning. Loss of self-esteem, guilt feelings, a pessimistic outlook, loss of appetite and weight, suicidal thinking, and diminished activity, energy and interest in life, are all possible depressive symptoms. A sedative type of tricyclic antidepressant such as doxepin (Sinequan) or amitriptyline (Elavil) given in a single nightly dose reduces the insomnia and relieves the depression.

Anxiety states are often worst in the evenings, in contrast to depressions. Typical anxiety symptoms are feelings of tension or fearfulness, palpitations, shortness of breath and a feeling of tightness in the chest, sweaty palms and "butterflies in the stomach." Anxiety may respond to minor tranquilizers, such as diazepam (Valium) or chlordiazepoxide (Librium). Major tranquilizers, or antipsychotic drugs are not very useful in nonpsychotic anxious patients unless the anxiety is provoked by obsessional thinking.

Schizophrenic sleep disorders, which may be of any variety, are often observed in the period immediately preceding an exacerbation of the disease. The more sedating antipsychotic medication such as chlorpromazine (Thorazine) and thoridiazine (Mellaril) given in relatively high doses at night controls many of the symptoms



FIGURE 1.—*Sleep log*

### Patient Identification

\_\_\_\_\_

Night of \_\_\_\_\_, \_\_\_\_\_, 19\_\_\_\_  
                     day                    date

When you went to bed, were you?

tired	sleepy	anxious (worried)	depressed	other
-------	--------	----------------------	-----------	-------

Activities during hour before bedtime: \_\_\_\_\_

Medicines taken today; and when taken:

Check your bedtime tonight by marking the  $\frac{1}{2}$  hour in which you went to bed. Check each half hour you were awake after bedtime, including awakening during the night.

Comment as you think best.

Comments: State of mind, reason you woke up, activities after awakening, etc.

	Bed Time	Time Awake
PM		5 <sub>30</sub>
		6 <sub>30</sub>
		7 <sub>30</sub>
		8 <sub>30</sub>
		9 <sub>30</sub>
		10 <sub>30</sub>
AM		11 <sub>30</sub>
		12 <sub>30</sub>
		1 <sub>30</sub>
		2 <sub>30</sub>
		3 <sub>30</sub>
		4 <sub>30</sub>
		5 <sub>30</sub>
		6 <sub>30</sub>
		7 <sub>30</sub>
		8 <sub>30</sub>
		9 <sub>30</sub>
		10 <sub>30</sub>

of schizophrenia as well as the sleep disorder.

Finally, the history of drug treatment is highly important, especially in chronic insomnia. The treatment of chronic sleep disorder may require nothing more than a careful and gradual weaning from hypnotic or sedative drugs. This, in turn, may require supportive, sensitive handling and encouragement by the physician. The patient should be warned of the changes that may occur upon drug withdrawal—changes such as increased dream recall, and nightmares—and reassured that these will disappear in a relatively short time. Patients often medicate themselves,

so that one must inquire about over-the-counter sleep remedies, and about alcohol and illicit drugs. These agents, especially alcohol, may serve to maintain chronic sleep disorder, just as prescribed hypnotics do.

If a sleep disorder must be treated with hypnotic drugs, one should carefully select the agent and the dose, and try to limit the duration of treatment. The patient's sleep pattern prior to instituting hypnotic drug treatment may indicate the drug to use. Thus, suppression of Stage IV in a patient who already has broken sleep and frequent awakenings may be more disruptive

than REM suppression, despite the problem of REM rebound. Obviously the dosage of drugs which produce rebound should always be tapered carefully before the drug is discontinued. Flurazepam (Dalmane) and chloral hydrate, two drugs which do not suppress REM sleep, are worthy of particular note here. Chloral hydrate also leaves Stage IV sleep unaltered; but it may rapidly lose effectiveness.<sup>13, 14</sup>

Treatment of Other Sleep Related Disorders

Effective treatment for enuresis has recently been found. Enuresis is found to occur primarily in non-REM sleep. It has been treated with imipramine, an antidepressant given in the range of 50 to 100 mg at night. The response does not seem to be related to any sleep stage alteration produced by the drug, but may be due to peripheral action and increasing bladder capacity.<sup>13, 28</sup>

Night terrors or sudden arousal with expression of intense fear and emotion are found to occur in Stage IV of non-REM sleep. Diazepam, 5 to 20 mgm at bedtime, a drug which diminishes Stage IV sleep was found to be effective in treatment of this disorder.<sup>29</sup>

Summary

The authors have reviewed some current concepts of sleep and the effects of common medications on particular sleep patterns. Most of the commonly used hypnotics suppress REM sleep, cause REM rebound with dream unpleasantness on withdrawal, and are not particularly effective. A systematic approach to sleep disorder requires the physician to arrive at the etiology of the disturbance, if at all possible. The uncritical use of hypnotic drugs may paradoxically serve to maintain a sleep disorder.

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# Intercourse Cystitis

JOHNNY B. ROY, M.D.\*, *Honolulu*

*Just as some people are prone to develop sore throat and colds, some women frequently develop cystitis. "Honeymoon Cystitis" is well known to both laity and physicians. With our liberal modern society, the term, intercourse cystitis, could easily be substituted. Its exact incidence is not known. However, all physicians, particularly gynecologists and urologists, encounter it frequently in daily practice.*

Most women complaining of cystitis admit, on careful questioning, that the infection does appear after intercourse. The majority of the pathologic microorganisms that infect the female urinary tract are the same microorganisms that constitute the normal flora of the alimentary tract.<sup>1,2</sup> The route by which bacteria reach the bladder is by ascent from the perineum, vagina and urethra.

The female urethra acts as a bridge in commuting the bacteria to the bladder. The female urethra is short, wide and in proximity to the vagina and rectum, besides its continuously being assaulted by the penis.

Once normal bowel bacteria come in contact with bladder urine, infection can readily set in. Urine is a very good medium for bacterial growth.<sup>3</sup> Pasture, as quoted by Asscher, alluded to the fact that urine readily supports bacterial growth. Asscher and his group have found that urine of human female is more conducive to bacterial growth than male urine because of a more optimal pH.

Silk found an increase in bacterial growth in the urine from women on birth control pills.<sup>4</sup>

Several investigators have shown that those women who are prone or susceptible to infection harbor a higher percentage of pathogenic microorganisms in their urethra and/or introitus.<sup>5,6</sup>

Coitus, by its mechanical nature, milks the urethra from without inwards, facilitating the propagation of pathogens into the bladder. The role of intercourse and the significant role it plays in the etiology of urinary infection is best evidenced by the fact that nuns have a strikingly lower incidence of bacteriuria than control women in the age group of 15 to 54 years.<sup>7</sup> It has also been found that the incidence of bacteriuria in unmarried women is less than in married women.

## Management

Once the mechanism of bladder infection has been explained to the patient in a most comprehensive manner, the physician should describe hygienic measures to counteract and interrupt the sequence of events leading to bacteriuria.

If it has been established that the bacteria are from the alimentary tract, then washing after defecation, when feasible, should be recommended. If wiping is ever employed, then this should be done in a proper manner. The number of women who wipe from posteriorly forward is surprising. This practice should be condemned.

Vaginal hygiene, including treatment of any yeast or Trichomonas infection should be undertaken. Voiding after intercourse is stressed as this tends to rid the bladder from the bacteria that gained entrance.

Landes and his group showed that the application of Betadine® ointment to the urinary meatus, twice a day, reduced the recurrence of infection by two-thirds.<sup>8</sup>

Despite all these measures, cystitis recurs frequently in some susceptible women. After a ten day course of treatment, I advise, in such cases, a capsule of 100 mg of Macrochantin following

\*Kaiser Foundation Hospital, 1697 Ala Moana Boulevard, Honolulu, Hawaii, 96815.

intercourse. Stamey advocates in a similar circumstance, the use of one tablet of 250 mg or 500 mg of Penicillin-G orally, after emptying the bladder.<sup>9</sup>

Acidification of urine renders it a poor culture medium. Consequently, dietary alternation or the use of acidifying agent, like cranberry juice, when not contraindicated, is encouraged.

Finally, any anatomical abnormality or organ-ic condition should be corrected if possible. Some investigators have noted that incomplete rupture of the hymen, or urethral hymenal fu-sion, tent the urinary meatus toward the vagina during intromission, thereby facilitating the as-cent of introital bacteria into the urethra. Lysis

of these bands or hymenal rings is reported to relieve the patients from their symptoms.<sup>10,11</sup>

Summary

Intercourse cystitis in women is a fairly com-mon and troublesome condition. Its prevalence is related to female anatomy. The infection is basically an ascending process. Potential patho-gens commonly found in the perineum and in-troitus gain entrance through the urethra into the bladder. Sexual intercourse, by its mechan-ical nature, perpetrates the infection. Manage-ment, which entails mostly hygienic measures, is briefly outlined.

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## Treating Addiction with Addiction?!

Elsewhere in this issue, it is stated that only 15 out of 195 addicts treated on the Hawaii methadone program between 1969 and 1973 were known to be free of both heroin and methadone addiction—about 8%.

This is not a very good score—indeed no better than the former program carried out by the federal government at Lexington, where a 90% recidivism rate was noted.

True, addictive people are programmed to fail in whatever they do, so perhaps 8% is the best that can be hoped for—better, anyway, than zero per cent.

Clearly, continued search for improved ways of ending addiction to “hard” narcotics is needed. The Synanon program has had some success, providing a type of group psychotherapy and live-in arrangement; sometimes the “live-in” is in prison. But since Synanon requires active participation, it has a limited appeal to addicts, who must *want* to be “clean”. Some addicts reportedly prefer the excitement and mystique of their drugged underworld to being “clean”.

Other drugs, including methadyl acetate and

its levo form, have been studied and reportedly might be superior to methadone, in that they can be given three times a week, instead of every day, as with methadone.

One of the problems with methadone is: it has become a drug of abuse, itself, by the IV route. The fact remains: an addictive person looking for a “high” will shoot anything into himself—even peanut butter!

Is treating a drug addiction with another addicting drug a rational approach to the problem? About all that can be said in favor of the methadone program is that it has the backing of our government. We are all aware that just because our government supports a program, this does not make it a *good* program.

Heroin addiction is a terrible thing—for individuals and for society. Creating another addiction really isn't solving anything. But *maybe* it's better than nothing until some wiser program comes along. At least it cuts down on muggings and burglaries for dope money. We hope.

D. R. J.

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prescribing, see complete prescribing information in SK&F literature or the following is a brief summary.

**Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

**Probably effective:** For relief of upper respiratory tract congestion and hypersecretion associated with vasomotor rhinitis and allergic rhinitis, and for prolonged relief.

**Probably effective:** For relief of nasal congestion and hypersecretion associated with the common cold and sinusitis.

**Unclassified:** The less-than-effective indications requires further investigation.

**Contraindications:** Hypersensitivity to any component; concurrent MAO inhibitor; severe hypertension; bronchial asthma; coronary artery disease; stenosing ulcer; pyloroduodenal or bladder neck obstruction. Children under 6.

**Warnings:** Caution patients about activities requiring alertness (e.g., operating machinery). Warn patients of possible additive effects with alcohol and CNS depressants.

**Use in Pregnancy:** In pregnancy, nursing mothers and women who might bear children, weigh potential benefits against hazards. Inhibition of lactation may occur.

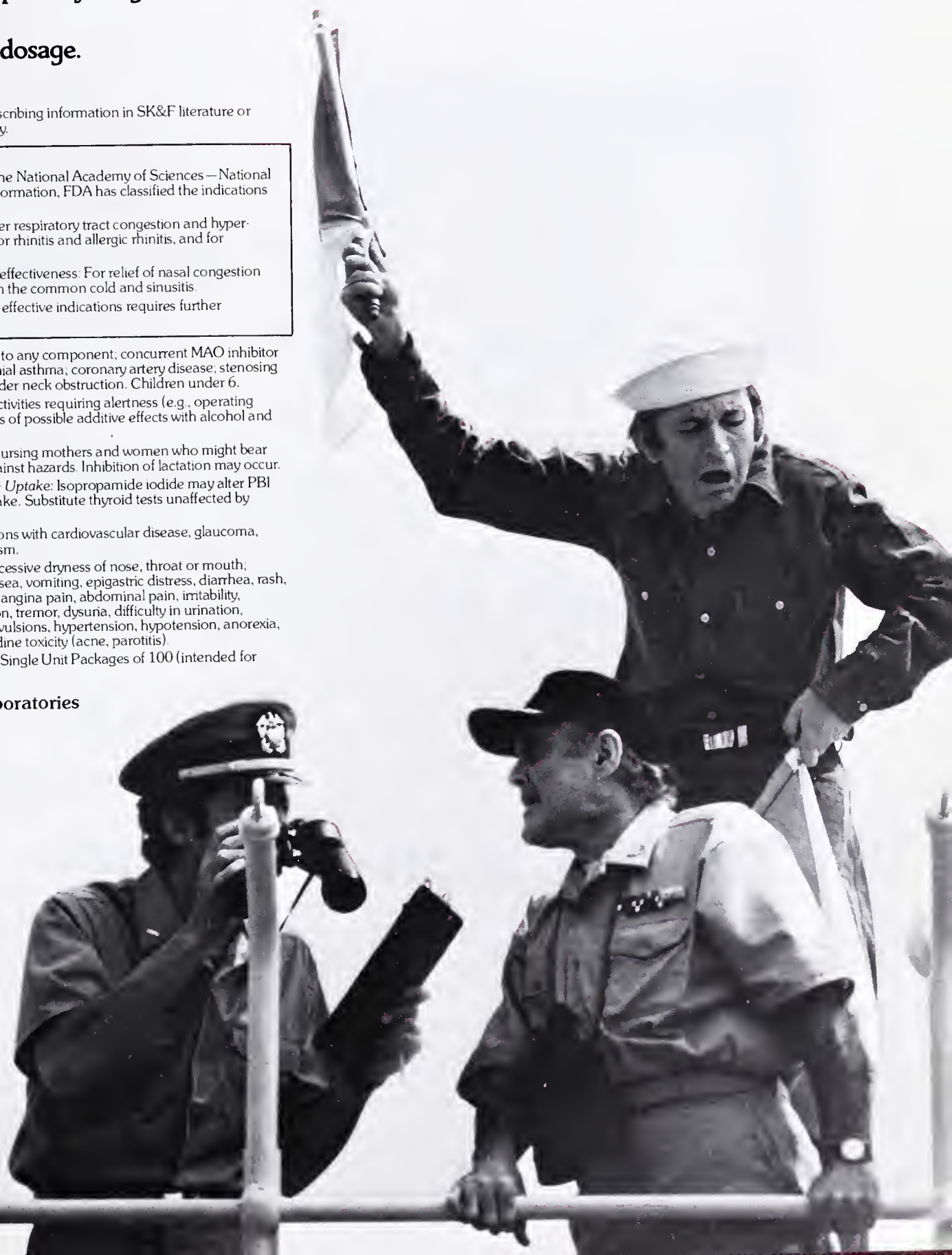
**Effect on PBI Determination and I<sup>131</sup> Uptake:** Isopropamide iodide may alter PBI results and will suppress I<sup>131</sup> uptake. Substitute thyroid tests unaffected by iodides.

**Precautions:** Use cautiously in persons with cardiovascular disease, glaucoma, goiter, hypertrophy, hyperthyroidism.

**Adverse Reactions:** Drowsiness, excessive dryness of nose, throat or mouth; constipation, or insomnia. Also, nausea, vomiting, epigastric distress, diarrhea, rash, weakness, chest tightness, angina pain, abdominal pain, irritability, dizziness, headache, incoordination, tremor, dysuria, difficulty in urination, leukopenia, leukopenia, convulsions, hypertension, hypotension, anorexia, depression, visual disturbances, iodine toxicity (acne, parotitis).

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- SPINAL VASCULAR MALFORMATIONS
- BRAIN EDEMA
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- THE MOYA MOYA SYNDROME
- POST-SYMPATHECTOMY NEURALGIA
- COMPUTERIZED TOMOGRAPHIC (EMI) SCANNING
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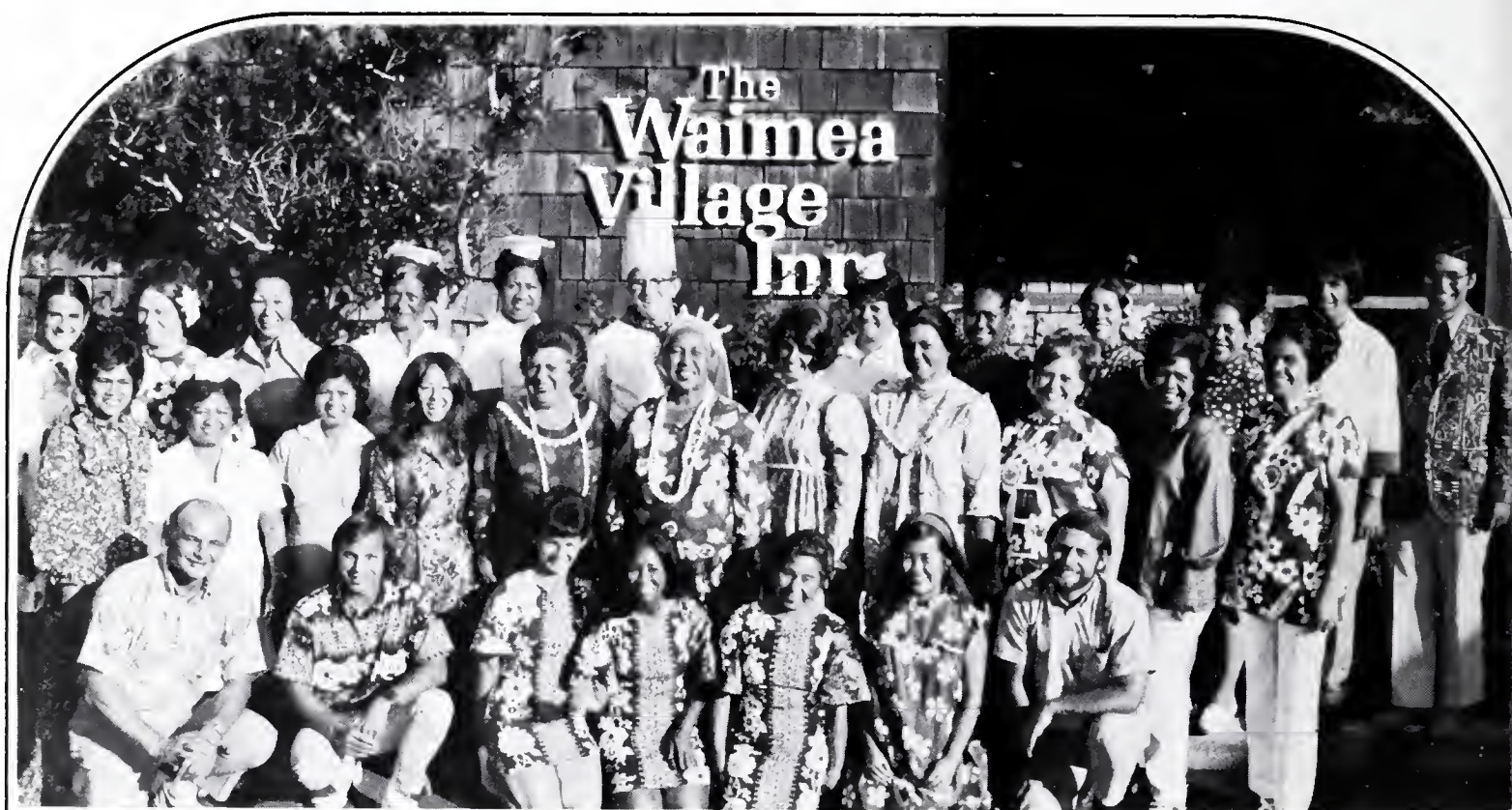
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Servings per container	32
Calories	100
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Carbohydrate	0 grams
Fat	11 grams
*Percent of calories from fat	99%
*Polyunsaturated	3 grams
*Saturated	2 grams
*Cholesterol	0 (0 per 100 grams)
Sodium	120 milligrams (865 mg /100 gm )

Percentage of U S recommended daily allowances  
(U S RDA)

Vitamin A 10%

Contains less than 2 percent of the U S RDA of protein, Vitamin C, thiamine, riboflavin, niacin, Calcium, and iron

\*Information on fat and cholesterol content is provided for individuals who, on the advice of a physician, are modifying their total dietary intake of fat and cholesterol

### IMPERIAL

Nutrition Information Per Serving

Serving size	14 grams (about one tablespoon)
Servings per container	32 (per pound container)
Calories	100
Protein	0 (not a significant source of protein)
Carbohydrate	0
Fat	11 grams
Percent of calories from fat	over 99%
**Polyunsaturated	3 grams
**Saturated	2 grams
**Cholesterol	0 (0 per 100 grams)

Percentage of U S recommended daily allowances  
(U S RDA)\*

Vitamin A 10%

Vitamin D 15%

\*Contains less than 2 percent of the U S RDA of Vitamin C, thiamine, riboflavin, niacin, calcium, and iron.

\*\*Information of fat and cholesterol content is provided for individuals who, on the advice of a physician, are modifying their total dietary intake of fat and cholesterol

### SAFFOLA

Nutrition Information Per Serving

Serving size	14 grams (about one tablespoon)
Servings per container	32 (per pound container)
Calories	100
Protein	0
Carbohydrate	0
Fat	11 grams
Percent of calories from fats	100%
Polyunsaturated	5 grams
Saturated	2 grams
Cholesterol	0

Information of fat and cholesterol content is provided for individuals who, on the advice of a physician, are modifying their total dietary intake of fat and cholesterol.

Percentage of U S recommended daily allowances  
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Vitamin E 15%

Contains less than 2 percent of the U S RDA of protein, Vitamin C, thiamine, riboflavin, niacin, calcium, and iron.

With the new nutritional labeling, it's all there in black and white. So you can see for yourself.

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higher in polyunsaturates than most other margarines including corn oil. And no other margarine is lower in saturated fats than Saffola.

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But we're not kidding ourselves.

We know that even if you advise a fat modified diet, your patients might not switch to Saffola. Not unless it tastes every bit as good or better than the spread, oil or mayonnaise they're now using. That's something else they're going to find out for themselves.





# The Role of the Detail Man

"I may be prejudiced, but I am very much in favor of the detail men I meet. Most of them are knowledgeable about the drugs they promote and can be a great help in acquainting me with new medication."

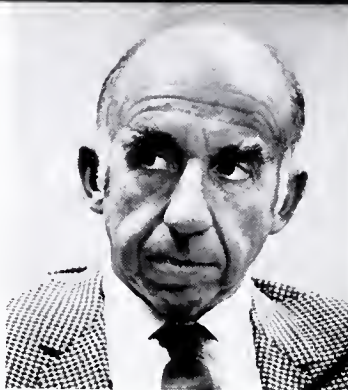
## Family Physician's Perception

I think that most general practitioners in this area feel as I do about the detail man. Over the years I have gotten to know most of the men who visit me regularly and they in turn have become aware of my particular interests and the nature of my practice. They, therefore, limit their discussion as much as possible to the areas of interest to me. Since I usually see the same representative again in future visits, it is in his best interest to supply me with the most honest, factual, as well as up-to-date information about his products.



Dr. Willard Gobbell  
Family Physician  
Encino, California

Dr. Jeremiah Stamler  
Chairman  
Department of Community  
Health and Preventive  
Medicine, and Dingman  
Professor of Cardiology  
Northwestern University  
Medical School



"In the total picture of dealing with health problems in this country, there is a potential for detail men to play a meaningful role."

## The Positive Influence

My contact with representatives and salesmen of the pharmaceutical industry is the type of contact that people in a medical center, research people, and academic people have and that's in all likelihood on a somewhat different level from that of the practicing physician.

Let me touch on how I personally perceive the role of the sales representative. These men reach large numbers of health professionals. Thus they could be—and at times actually are—disseminators of useful information. They could consistently serve a real educational function in their ability to discuss their products.

At present they do distribute printed material, brochures and pamphlets—some of it scientifically sound and therefore truly useful—as well as some excellent films produced by the pharmaceutical industry. When they function in this

## He a Source of Information?

Yes, with certain reservations. The average sales representative has a great fund of information about the drug products he is responsible for. He is usually able to answer most questions fully and intelligently. He can also supply prints of articles that contain a great deal of information. Here, too, I exercise some caution. I usually accept most of the statements and opinions that I find in the papers and studies which come from the larger teaching facilities. I go without saying that a physician should also rely on other sources for his information on pharmacology.

## Training of Sales Representatives

Ideally, a candidate for the position as a sales representative of a pharmaceutical company should be a graduate pharmacist who has a questioning mind. I don't think this is possible in every case, and so it becomes the responsibility

of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as up-dated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce—information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone

in the health care field, whether they be general practitioners, surgeons or salesmen.

## Value of Sampling

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

capacity they are indeed useful; particularly in the fact that they disseminate broadly based educational material and serve not just as "pushers" of their drugs.

## The Other Side of the Coin

Obviously, the pharmaceutical companies are not producing all this material as a labor of love—they are in the business of selling products for profit. In this regard the ambitious and improperly motivated sales representative can exert a negative influence on the practicing physician, both by presenting a one-sided picture of his product, and by encouraging the practitioner to depend too heavily on drugs for his total therapy. In these ways, the salesman has often distorted objective reality and undermined his potential role as an educator.

## The Industry Responsibility

Since the detail man must be an information resource as well as a representative of his particular pharmaceutical company, he should be carefully selected and

thoroughly trained. That training, perforce, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public—*i.e.*, the patients—will be.

## Physician Responsibility

The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that informa-

tion must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed ethical. I challenge the industry as a whole to live up to that word in its finest sense.

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1. Demeulenaere, L.: Action du R 1132 sur le transit gastro-intestinal. *Acta Gastroent. Belg.* 21:674-680 (Sept.-Oct.) 1958.

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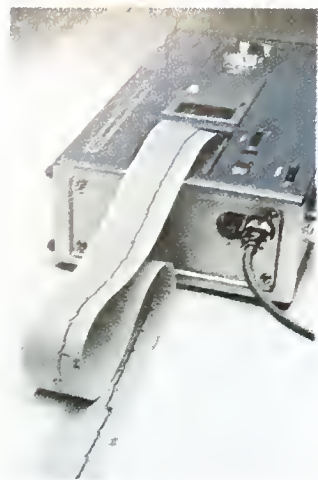
VOLUME 33 / NUMBER 12 • DECEMBER 1974

## Proceedings of The House of Delegates



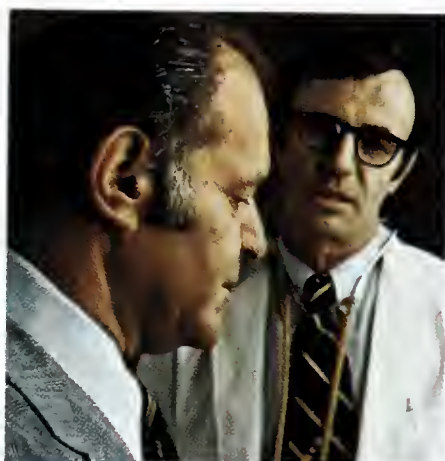
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# Why add Librium® (chlordiazepoxide HCl) to your cardiovascular regimen?

Excessive anxiety in susceptible patients can set in motion a chain of responses which add to the heart's work and thereby increase the possibility of cardiovascular complications. Furthermore, intense anxiety may interfere with effective medical management since some patients, in an attempt to deny their illness, may resist acceptance of necessary medication, dietary restrictions and other therapeutic directives. When counseling and reassurance alone are inadequate to

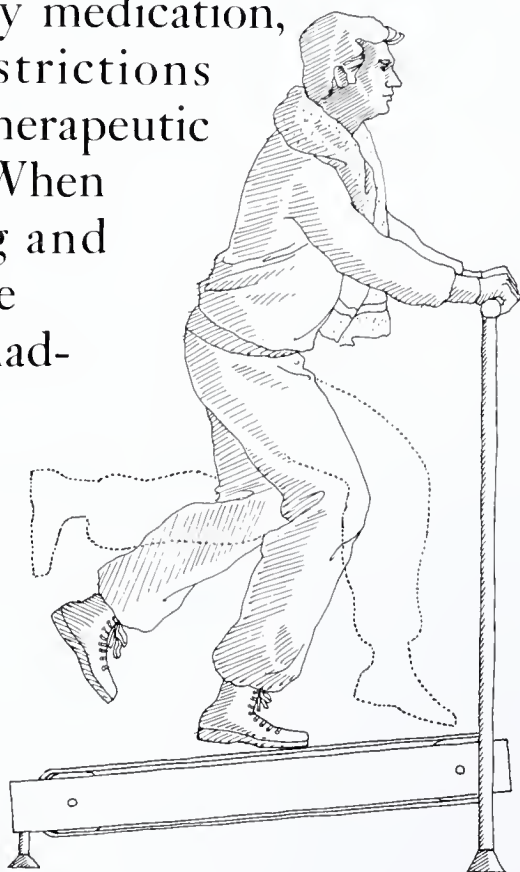


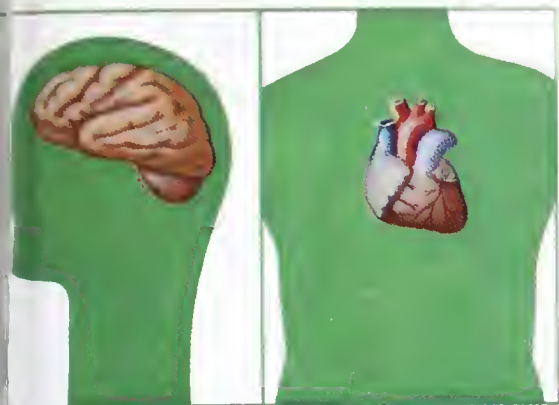
relieve undue anxiety, adjunctive Librium (chlordiazepoxide HCl) may be beneficial.

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Librium is used as an adjunct to primary cardiovascular medications, since it acts directly on the central nervous system, reducing excessive anxiety and emotional tension. In so doing, Librium indirectly affects cardiovascular function.

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creasing gradually as needed and tolerated.

Librium is used concomitantly with certain specific medications of other classes of drugs, such as cardiac glycosides, diuretics, antihypertensive agents, vasodilators and anticoagulants. Although clinical studies have not established a cause and effect relationship, physicians should be aware that variable effects on blood coagulation have been reported very rarely in patients receiving oral anticoagulants and Librium. After anxiety has been reduced to tolerable levels, Librium therapy should be discontinued.



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**Precautions:** In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or over sedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

**Adverse Reactions:** Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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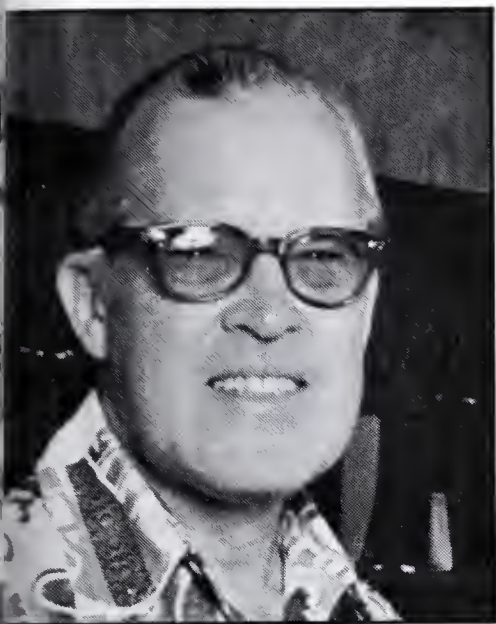
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**“I looked into  
but I really get  
service from the  
phone company.”**

# Others



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*Vice President & General Manager  
Mauna Kea Beach Hotel*

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Physician's Report of Services Rendered

HAWAII MEDICAL SERVICE ASSOCIATION



MEMBERSHIP NUMBER 654023	COV. 7 04	PATIENT'S FIRST NAME Mary	CHECK ONE 3 ADULT MALE 4 ADULT FEMALE 7 JUNIOR 8 JUVENILE	BIRTH DATE MO DAY YEAR 7 1 23	SERVICE DATES FROM MO DAY YEAR TO MO DAY YEAR 7 4 7 10 72
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SUBSCRIBER'S NAME John Smith	PHYSICIAN'S NAME N. E. Doktor, M.D.	PROVIDER NO. 0012
IF FEDERAL BLUE SHIELD - BLUE CROSS PLAN FILL IN	ADDRESS (IF NOT IN STATE OF HAWAII)	STATE ZIP CODE

OTHER MEDICAL COVERAGE <input type="checkbox"/> YES <input type="checkbox"/> NO NAME OF CARRIER	DATE 7/4/72	DIAGNOSIS Fell
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PATIENT'S COMPLAINT	DATE OF ONSET 7/1/72	LOCATION: Room
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SURGICAL PROCEDURE (USE ICD-9 CODE)	DATE 7/4/72	NAME OF HOSPITAL
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DESCRIPTION OF Laceration	DATE 7/4/72	NAME OF HOSPITAL
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SURGERY	DATE 7/1/72	NAME OF HOSPITAL
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OFFICE VISIT <input type="checkbox"/> CHECK UP <input type="checkbox"/> NEW PATIENT	DATE 7/1/72	NAME OF HOSPITAL
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HOSPITAL VISIT	DATE 7/1/72	NAME OF HOSPITAL
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LABORATORY (Itemize)	DATE 7/1/72	NAME OF HOSPITAL
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X-RAYS (NO. OF VIEWS) (Itemize)	DATE 7/1/72	NAME OF HOSPITAL
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IMMUNIZATIONS (Itemize)	DATE 7/1/72	NAME OF HOSPITAL
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DRUG	DATE 7/1/72	NAME OF HOSPITAL
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INJECTION	DATE 7/1/72	NAME OF HOSPITAL
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TAX	DATE 7/1/72	NAME OF HOSPITAL
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LESS PAID BY PATIENT	DATE 7/1/72	NAME OF HOSPITAL
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FOR DESCRIPTION OF UNUSUAL OR COMPREHENSIVE SERVICE, USE REVERSE SIDE	DATE 7/1/72	NAME OF HOSPITAL
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REMARKS:	DATE 7/1/72	NAME OF HOSPITAL
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DOCTOR'S SIGNATURE DATE



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# The Role of the Detail Man

"I may be prejudiced, but I am very much in favor of the detail men I meet. Most of them are knowledgeable about the drugs they promote and can be a great help in acquainting me with new medication."

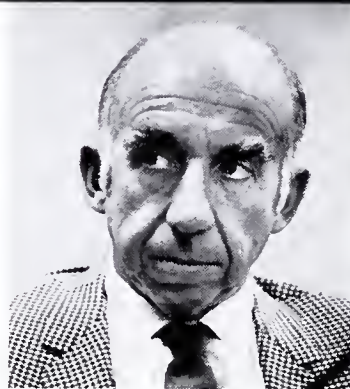
## Family Physician's Perception

I think that most general practitioners in this area feel as I do about the detail man. Over the years I have gotten to know most of the men who visit me regularly and they in turn have become aware of my particular interests and the nature of my practice. They, therefore, limit their discussion as much as possible to the areas of interest to me. Since I usually see the same representative again in future visits, it is in his best interest to supply me with the most honest, factual, as well as up-to-date information about his products.

Dr. Willard Gobbell  
Family Physician  
Encino, California



Dr. Jeremiah Stamler  
Chairman  
Department of Community  
Health and Preventive  
Medicine, and Dingman  
Professor of Cardiology  
Northwestern University  
Medical School



"In the total picture of dealing with health problems in this country there is a potential for detail men to play a meaningful role."

## The Positive Influence

My contact with representatives and salesmen of the pharmaceutical industry is the type of contact that people in a medical center, research people, and academic people have and that's in all likelihood on a somewhat different level from that of the practicing physician.

Let me touch on how I personally perceive the role of the sales representative. These men reach large numbers of health professionals. Thus they could be — and at times actually are — disseminators of useful information. They could consistently serve a real educational function in their ability to discuss their products.

At present they do distribute printed material, brochures and pamphlets — some of it scientifically sound and therefore truly useful — as well as some excellent films produced by the pharmaceutical industry. When they function in this

Opinion  
&  
Dialogue

## Is He a Source of Information?

Yes, with certain reservations. The average sales representative has a great fund of information about the drug products he is responsible for. He is usually able to answer most questions fully and intelligently. He can also supply reprints of articles that contain a great deal of information. Here, too, I exercise some caution. I usually accept most of the statements and opinions that I find in the papers and studies which come from the larger teaching facilities. It goes without saying that a physician should also rely on other sources for his information on pharmacology.

## Training of Sales Representatives

Ideally, a candidate for the position as a sales representative of a pharmaceutical company should be a graduate pharmacist who has a questioning mind. I don't think this is possible in every case, and so it becomes the responsibility

of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as updated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce — information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone

in the health care field, whether they be general practitioners, surgeons or salesmen.

## Value of Sampling

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

capacity they are indeed useful; particularly in the fact that they disseminate broadly based educational material and serve not just as "pushers" of their drugs.

## The Other Side of the Coin

Obviously, the pharmaceutical companies are not producing all this material as a labor of love — they are in the business of selling products for profit. In this regard the ambitious and improperly motivated sales representative can exert a negative influence on the practicing physician, both by presenting a one-sided picture of his product, and by encouraging the practitioner to depend too heavily on drugs for his total therapy. In these ways, the salesman has often distorted objective reality and undermined his potential role as an educator.

## The Industry Responsibility

Since the detail man must be an information resource as well as a representative of his particular pharmaceutical company, he should be carefully selected and

thoroughly trained. That training, perforce, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public — *i.e.*, the patients — will be.

## Physician Responsibility

The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that informa-

tion must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

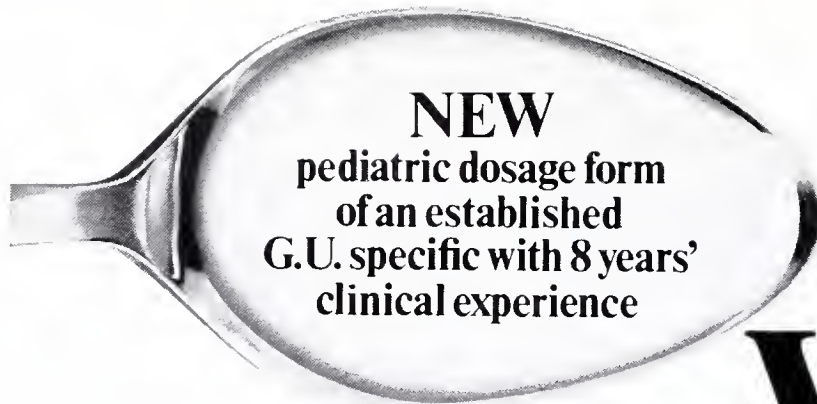
The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed ethical. I challenge the industry as a whole to live up to that word in its finest sense.

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prescribe a proven oral agent with  
bactericidal action against Escherichia coli,  
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Controlled "today," the bacterial insult of child-  
hood urinary tract infections may mean major renal  
damage for the adult "tomorrow." That's why early,  
effective antibacterial therapy is important.

Control can often be maintained with a new pedi-  
atric dosage form of a G.U. specific that is highly effec-  
tive against the gram-negative spectrum.\* NegGram  
Suspension is bactericidal over the entire urinary pH  
range against *E. coli*, *Klebsiella*, *Aerobacter*, and  
*Proteus*, including *P. mirabilis*, *P. morganii*, *P. vulgaris*,  
and *Proteus*. Disc susceptibility testing is recom-  
mended.

In addition, NegGram Suspension offers these impor-  
tant advantages: fast symptomatic relief  
• onset of action • no crystalluria or fungal over-  
growth reported to date in clinical reports and animal  
studies • no need to adjust acidity • low incidence of  
side effects • good correlation be-  
tween *in vitro* and *in vivo* response†† • no cross resist-  
ance has been reported with other antibacterials.

For the young patient, NegGram Suspension is  
easy to take because of its delicious raspberry flavor.

Effective against *Pseudomonas*.

Discussion of Adverse Reactions.

Johnson, L. H. and Cox, C. E.: Bacteriologic and pharmacodynamic  
studies of nalidixic acid, *J. Urol.* 104:908, Dec. 1970.

## Introducing NegGram<sup>®</sup> brand of nalidixic acid, NF Suspension for childhood urinary tract infection

NegGram<sup>®</sup> brand of nalidixic acid, NF

Caplets<sup>®</sup> and Suspension

Brief Summary

**Indications:** NegGram is indicated for the treatment of urinary  
tract infections caused by susceptible gram-negative micro-  
organisms, including the majority of *Proteus* strains, *Klebsiella*-  
*Aerobacter* (or *Enterobacter*), and *E. coli*. Disc susceptibility  
testing with the 30 mcg. disc should be performed prior to admin-  
istration of the drug, and during treatment if clinical response  
warrants.

**Contraindications:** NegGram is contraindicated in patients with  
known hypersensitivity to nalidixic acid and in patients with a  
history of convulsive disorder diseases.

**Warnings:** CNS effects including brief convulsions, increased  
intracranial pressure, and toxic psychosis have been reported  
rarely. These have occurred in infants and children or in geri-  
atric patients, usually from overdosage or in patients with pre-  
disposing factors. If these reactions occur, NegGram should be  
discontinued and appropriate measures should be instituted.  
(See Adverse Reactions and Overdosage.)

**Usage in Pregnancy.** Safe use of NegGram during the first tri-  
mester of pregnancy has not been established. However, the  
drug has been used during the last two trimesters without pro-  
ducing apparent ill effects in mother or child.

**Precautions:** Blood counts and renal and liver function tests  
should be performed periodically if treatment is continued for  
more than two weeks. NegGram should be used with caution in  
patients with liver disease, severely impaired kidney function,  
epilepsy, or severe cerebral arteriosclerosis.

Patients should be cautioned to avoid undue exposure to direct  
sunlight while receiving NegGram. Therapy should be discon-  
tinued if photosensitivity occurs.

Bacteria resistant to NegGram may emerge rapidly, sometimes  
within 48 hours of treatment. Therefore, cultures and bacterial  
sensitivity tests should be repeated if the clinical response is un-  
satisfactory or if a relapse occurs.

Nalidixic acid may enhance the effects of oral anticoagulants, war-  
farin or bishydroxycoumarin, by displacing significant amounts  
from serum albumin binding sites.

When Benedict's or Fehling's solutions or Clinitest<sup>®</sup> Reagent  
Tablets are used to test the urine of patients taking NegGram,  
a false-positive reaction for glucose may be obtained, due to the  
liberation of glucuronic acid from the metabolites excreted. How-  
ever, a colorimetric test for glucose based on an enzyme reaction  
(e.g., with Clinistix<sup>®</sup> Reagent Strips or Tes-Tape<sup>®</sup>) does not give  
a false-positive reaction to the liberated glucuronic acid.

Incorrect values may be obtained for urinary 17-keto and keto-  
genic steroids in patients receiving NegGram, because of an  
interaction between the drug and the *m*-dinitrobenzene used in  
the usual assay method. In such cases, the Porter-Silber test for  
17-hydroxycorticoids may be used.

**Adverse Reactions:** Reactions reported after oral administration  
of NegGram include *CNS effects:* drowsiness, weakness, head-  
ache, and dizziness and vertigo. Reversible subjective visual dis-  
turbances without objective findings have occurred infrequently  
(generally with each dose during the first few days of treatment).  
These reactions include overbrightness of lights, change in color  
perception, difficulty in focusing, decrease in visual acuity, and  
double vision. They usually disappeared promptly when dosage  
was reduced or therapy was discontinued. Toxic psychosis or  
brief convulsions have been reported rarely, usually following  
excessive doses. In general, the convulsions have occurred in  
patients with predisposing factors such as epilepsy or cerebral  
arteriosclerosis. In infants and children receiving therapeutic  
doses of NegGram, increased intracranial pressure with bulging  
anterior fontanel, papilledema, and headache has occasionally  
been observed. A few cases of 6th cranial nerve palsy have been  
reported. Although the mechanisms of these reactions are un-  
known, the signs and symptoms usually disappeared rapidly with  
no sequelae when treatment was discontinued. *Gastrointestinal:*  
abdominal pain, nausea, vomiting, and diarrhea. *Allergic:* rash,  
pruritus, urticaria, angioedema, eosinophilia, joint stiffness, and  
rarely, anaphylactoid reaction. Photosensitivity reactions, pri-  
marily involving exposed skin surfaces, have disappeared after  
therapy was discontinued. *Other:* rarely, cholestasis, paresthesia,  
metabolic acidosis, thrombocytopenia, leukopenia, or hemolytic  
anemia which in some patients may have been associated with a  
deficiency in activity of glucose-6-phosphate dehydrogenase.

**Dosage and Administration:** *Adults.* The recommended dosage  
for initial therapy in adults is 1 g. administered four times daily  
for one or two weeks (total daily dose, 4 g.). For prolonged  
therapy, the total daily dose may be reduced to 2 g. after the  
initial treatment period.

*Children.* Until further experience is gained, NegGram should  
not be administered to infants younger than three months. Dos-  
age in children 12 years of age and under should be calculated  
on the basis of body weight. The recommended total daily dosage  
for initial therapy is 25 mg./lb./day (55 mg./kg./day), adminis-  
tered in four equally divided doses. For prolonged therapy, the  
total daily dose may be reduced to 15 mg./lb./day (33 mg./kg./  
day). NegGram Suspension or NegGram Caplets of 250 mg. may  
be used. One 250 mg. Caplet is equivalent to one teaspoon (5 ml.)  
of the Suspension.

**Overdosage: Manifestations.** Toxic psychosis, convulsions, in-  
creased intracranial pressure, or metabolic acidosis may occur in  
patients taking more than the recommended dosage. Vomiting,  
nausea, and lethargy may also occur following overdosage. *Treat-*  
*ment.* Reactions are short lived (two to three hours) because the  
drug is rapidly excreted. If overdosage is noted early, gastric  
lavage is indicated. If absorption has occurred, increased fluid  
administration is advisable and supportive measures such as oxy-  
gen and means of artificial respiration should be available. Al-  
though anticonvulsant therapy has not been used in the few  
instances of overdosage reported, it may be indicated in a severe  
case.

**How Supplied:** Suspension (250 mg./5 ml. tsp.), raspberry flavored,  
bottles of 4 fluidounces and 1 pint.

Caplets of 250 mg., scored, bottles of 56 and 1000.

Caplets of 500 mg., scored, bottles of 56, 500, and 1000.



# Kefzol<sup>®</sup> cefazolin sodium

Ampoules, equivalent to 1 Gm. of cefazolin



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# **Proceedings of The House of Delegates**



**118th Annual Meeting  
October 28 - November 1, 1974**





# 118th ANNUAL MEETING HAWAII MEDICAL ASSOCIATION

The annual meeting for the one hundred and eighteenth year of corporate existence of the Hawaii Medical Association was held in Honolulu in 1974. The following program was presented:

## **Hypertension—A National Health Crisis**

Kenneth L. Melmon, M.D.

## **Treatment of Urinary Tract Infections**

Anthony W. Chow, M.D.

## **The Clinical Pharmacology of Antihypertensive Drugs**

Kenneth L. Melmon, M.D.

## **Mechanisms and Use of the Antiarrhythmic Drugs**

Dean T. Mason, M.D.

## **Management of Acute Hypersensitivity Syndromes**

Joseph Bianchine, Ph.D., M.D.

## **Supportive Psychotherapy in Medical Practice**

Allen J. Enelow, M.D.

## **Sexual Responses Through the Media of Film**

Eugene C. Divita, M.D.

## **MEDLINE Orientation: Instant Bibliography**

William Walker, Hawaii Medical Library

## **Recent Advances in the Management of Acute Leukemia**

Emil J. Freireich, M.D.

## **The Alternate-day Corticosteroid Regimen: Uses and Abuses**

Lester F. Soyka, M.D.

## **Opportunistic Pulmonary Infections**

Irwin Ziment, M.D.

## **Uses and Abuses of Antibiotics**

Irwin Ziment, M.D.

## **Keeping the Chronic Lunger Out of Trouble**

Irwin Ziment, M.D.

## **Management of Inoperable Bronchiogenic Carcinoma**

Joseph Bianchine, Ph.D., M.D.

## **Opportunistic Pulmonary Infections: Diagnosis and Management**

Anthony W. Chow, M.D.

## **PANEL DISCUSSION: "Drug Interactions"**

Robert H. Moser, M.D., Moderator

Paul A. Walter, M.D.

Kenneth L. Melmon, M.D.

Lester F. Soyka, M.D.

Joseph Bianchine, Ph.D., M.D.

## **Use and Misuse of the Psychotropic Agents**

Allen J. Enelow, M.D.

## **Human Sexuality**

Eugene C. Divita, M.D.

## **The Immunological Basis of Cancer Prognosis and Therapy**

Emil J. Freireich, M.D.

## **The Treatment of Bacteriodes Fragilis Infections**

Anthony W. Chow, M.D.

## **Management of Cardiac Pump Failure in Acute Myocardial Infarction**

Dean T. Mason, M.D.

## **Psychiatric Aspects of Respiratory Disease**

Irwin Ziment, M.D.

## **Treatment of Fever**

Thomas M. Cashman, M.D.

## **Improving Compliance With Therapeutic Regimens**

Vincent S. Aoki, M.D.

## **Some Consequences and Cures to the Inappropriate Prescription**

Habits of Physicians

Kenneth L. Melmon, M.D.

## **PANEL DISCUSSION: "Current Regulations and Activities of Drug Enforcement Agencies"**

John Y. Y. Lee

Jerome G. Estavillo

Thomas A. Okimoto

## **The Food and Drug Administration and the Practicing Physician**

Merle L. Gibson, M.D.

## **The Management of Acute Grief**

Allen J. Enelow, M.D.

## **Evaluation of Sexual Dysfunction**

Eugene C. Divita, M.D.

## **Chemo-immunotherapy for Malignant Disease**

Emil J. Freireich, M.D.

## **Basic Concepts of Drug Metabolism**

Lester F. Soyka, M.D.

## **Current Concepts in the Treatment of Angina Pectoris**

Dean T. Mason, M.D.

## **The Treatment of Gonorrhea**

Anthony W. Chow, M.D.

## **Management of Parkinsonism**

Joseph Bianchine, Ph.D., M.D.

## **Therapy of Hyperlipidemias**

Paul A. Walter, M.D.

## **Generic Equivalents and Bioavailability. Are all Drug Products the Same?**

Lester F. Soyka, M.D.

## **Use of New Prognostic Factors for Predicting Response and Survival in Malignant Disease**

Emil J. Freireich, M.D.

## **Management of the Poisoned Patient**

Joseph Bianchine, Ph.D., M.D.

## **Oxygen Therapy: Who Needs it, and How to Give It**

Irwin Ziment, M.D.

## **New Approaches to Quantitative Therapeutic Decisions**

Kenneth L. Melmon, M.D.

## **Recent Advances in the Clinical Application of the Digitalis Glycosides**

Dean T. Mason, M.D.

## **The Treatment of Gram-Negative Bacteremia**

Anthony W. Chow, M.D.

## **Principles in Management of Chronic Alcoholics**

Allen J. Enelow, M.D.

## **Discussion**

## **The Treatment of Sexual Dysfunctions**

Eugene C. Divita, M.D.

## **Acute Stroke Rehabilitation Program**

Angelo Scavarda, M.D.

## **Speech and Aphasia Screening Program**

Thomas A. Jerke, M.S., C.C.C.

## **Occupational Therapy in Stroke**

Helen Hamasu, OTR

## **Acute Medical Treatment in Stroke**

Jordon S. Popper, M.D.

## **Vascular Surgery in Stroke**

Thomas J. Whelan, M.D.



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 Ralph Hale (1975) (UOH)  
 Kleona Rigney (1975) (DOH)  
 Drake Will (1976) (HMA)  
 Eugene Edynak (1974) (UOH)

## Chronic Disease

Charlotte Florine, M.D., Chairman  
 L. Clagett Beck  
 K. Y. Lum  
 Harold T. Machigashira  
 Dennis I. Maehara  
 Willard Miyahira  
 Shozo Ogawa  
 James Orbison  
 Kleona Rigney  
 Norman Sloan  
 Calvin C. J. Sia (Commissioner)  
 Kenneth Haling (Maui)  
 Reginald Carvalho (Hawaii)  
 Eugene D. Rames (Kauai)  
 Robert Weiner

## Communicable Disease &amp; Immunization

L. T. Chun, M.D., Chairman  
 Ray Allen  
 Samuel Allison  
 Ira D. Hirschy  
 Allan K. Izumi  
 William P. G. Jones  
 Robert Latta  
 C. George Murdock  
 Roscoe S. Pebley  
 Betty S. M. Soo  
 Hiroaki Tottori  
 Milton Trager  
 Kirsten Vennesland  
 Drake Will  
 Calvin C. J. Sia (Commissioner)  
 Katok Ang Chuang (Kauai)  
 Denis J. Fu (Maui)  
 Moon Soo Park (Hawaii)

## Community Health Care

John J. Lowrey, M.D., Chairman  
 Elisabeth Anderson  
 Claude V. Caver  
 Hing Hua Chun  
 Cesar B. DeJesus  
 Frederick Dodge  
 Mary Glover  
 Charles Judd, Jr.  
 Stanley Kobashigawa  
 Wilbur S. Lummis  
 Paul McCallin

William Moore  
 Noboru Oishi  
 John Peyton  
 D. Venudhar Reddy  
 Kazuo Teruya  
 Ignacio Torres  
 Neal Winn  
 Fred I. Gilbert, Jr. (Commissioner)  
 P. M. Cockett (Kauai)  
 Ruth E. Oda (Hawaii)  
 William Kepler (Maui)

## Convention

Arnold W. Siemsen, M.D., Chairman  
 L. Clagett Beck  
 Clifford B. G. Chang  
 Bert Lum  
 George H. Mills  
 Willard Y. Miyahira  
 Andrew Morgan  
 James Orbison  
 Herbert S. Uemura  
 R. Varian Sloan (Commissioner)  
 Patrick K. H. Aiu (Kauai)  
 George Bracher (Hawaii)  
 Robert Moser (Maui)

## Crippled Children

D. Venudhar Reddy, M.D., Chairman  
 Stanford K. W. Au  
 Agyl D. Bacon  
 Sharon Bintliff  
 William Gullledge  
 Allan R. Kuimimoto  
 Ivar Larsen  
 Francis Nakamura  
 Jordan Popper  
 Walton K. T. Shim  
 John Smith  
 Betty Soo  
 Kazuo Teruya  
 Calvin C. J. Sia (Commissioner)  
 Katok Ang Chuang (Kauai)  
 Denis J. Fu (Maui)  
 Audrey W. Mertz (Hawaii)

## Disaster

John W. Edwards, Jr., M.D., Chairman  
 Edward W. Boone  
 Walter W. Y. Chang  
 Martha L. Hefley  
 Hiroshi Ikeda  
 Casimer Jasinski  
 Joseph McNamara  
 Gernot Spallek  
 John Smith  
 Walter K. W. Young  
 Fred I. Gilbert, Jr., (Commissioner)  
 Burt Wade (Kauai)  
 Sakae Uehara (Maui)  
 Richard Lundborg (Hawaii)

## Emergency Medical Services

Herbert Y. H. Chinn, M.D., Chairman  
 Thomas Frissell, M.D.  
 Wilbur Lummis, M.D.  
 Alfred D. Morris, M.D. (1974)



Livingston Wong, M.D.  
 William W. L. Dang  
 Stanley Saiki  
 Walter W. Y. Chang, M.D. (1974)  
 Thomas Chang, M.D. ex officio  
 Mr. Masa Tasaka, HAH

#### **Fee Survey**

Maurice Nicholson, M.D., Chairman  
 Robert C. Bell  
 Murray Berger  
 Percival H. Y. Chee  
 Clifford Chock  
 William G. Davis  
 Raymond deHay  
 John Edwards  
 George Ewing  
 Victor Hay-Roe  
 Gail Li  
 Carl H. Lum  
 Yoshio Oda  
 Henry Oyama  
 L. Q. Pang  
 Werner Schroffner  
 F. B. Warshauer  
 Allan Young  
 Albert Chun-Hoon (Commissioner)  
 Sakae Uehara (Maui)  
 Robert Hamblin (Kauai)  
 S. Kasamoto (Hawaii)

#### **Finance**

Grover H. Batten, M.D., Chairman  
 Marcelino Avelilla (1975)  
 William W. L. Dang (1976)  
 William Hindle (1976)  
 Kiyoshi Inouye (1974)  
 Elmer Johnson (1976)  
 Honolulu County Treasurer  
 Maui County Treasurer  
 Hawaii County Treasurer  
 Kauai County Treasurer

#### **Health Facilities**

Henry Oyama, M.D., Chairman  
 Edwin Adams  
 Joseph Battista  
 Murray Berger  
 Walter W. Y. Chang  
 Masaru Koike  
 Benjamin Lambiotte  
 Ivar Larsen  
 Reginald Patterson  
 Buenaventura Realica  
 Benjamin Tom  
 Hau Ngoc Vu  
 Douglas B. Bell, II (Commissioner)  
 DeWitt Smith (Hawaii)  
 Sakae Uehara (Maui)

#### **Health Manpower**

Robert A. Nordyke, M.D., Chairman  
 Elisabeth Anderson  
 H. H. Chun  
 Cesar B. DeJesus  
 William H. Hindle  
 Young K. Paik  
 George Schnack  
 Hau Ngoc Vu  
 Livingston Wong  
 Fred I. Gilbert, Jr. (Commissioner)  
 J. Mark Sowers (Maui)  
 George Bracher (Hawaii)  
 DeWitt Smith (Hawaii)  
 Albert P. Ley (Kauai)

#### **Interprofessional Relations**

George Schnack, M.D., Chairman  
 Argyl D. Bacon  
 Albert C. K. Chun-Hoon  
 Cesar B. DeJesus  
 Calvin C. M. Kam  
 Eugene S. Kostiuik

Rowlin L. Lichter  
 Pershing Lo  
 Herbert Luke  
 Robert W. Peyton, II  
 Robert L. Smith  
 Douglas B. Bell, II (Commissioner)  
 Robert J. Emrick (Kauai)  
 Timothy D. Woo (Hawaii)  
 Neville G. Achong (Maui)

#### **Intraprofessional Liaison**

William Hindle, M.D., Chairman

#### **Legislation**

George Goto, M.D., Chairman  
 Harry Arnold, Jr.  
 Clarence F. Chang  
 Clifford Chang  
 Richard Dang  
 Cesar B. DeJesus  
 Gerald D. Faulkner  
 Roy Kuboyama  
 Richard K. C. Lee  
 P. Howard Liljestrand  
 Wilbur S. Lummis  
 George Mills  
 Walter Quisenberry  
 J. I. Frederick Reppun  
 Richard Y. Sakimoto  
 George Schnack  
 Roy G. Smith  
 Theodore Tomita  
 Neal Winn  
 Charles Custer (Kauai)  
 Clifford F. Moran (Maui)  
 John Morris (Maui)  
 Helen Percy (Maui)  
 Sakae Uehara (Maui)  
 Sau Ki Wong

#### **Maternal & Perinatal Mortality Study**

George Goto, M.D., Chairman  
 Robert C. Allin  
 Mario P. Bautista  
 Murray S. Berger  
 Sharon Bintliff  
 Thomas A. Burch  
 Ralph W. Hale  
 Millard Seto  
 Roy G. Smith  
 Francis Soon  
 Wayne S. Takemoto  
 Francis M. Terada  
 Thomas Teruya  
 Hau Ngoc Vu  
 William H. Hindle  
 Roy M. Kaye  
 Thomas Y. Kobara  
 Gail G. L. Li  
 Paul McCallin  
 Bunzo Nakagawa  
 Herbert Nakata  
 John Ohtani  
 Alistair Philip  
 James T. S. Wong  
 Winfred Y. Lee (Commissioner)  
 Patrick K. M. Aiu (Kauai)  
 Lawrence Allred (Maui)  
 Paul J. Caldwell (Hawaii)  
 Katock Ang Chuang (Kauai)  
 William Kepler (Maui)  
 William B. Patterson (Maui)  
 Wolfgang Pfaltzer (Maui)  
 F. C. Li  
 Franklin Young  
 Edgar Ho  
 Denis Fu  
 Thomas Cashman

#### **Medical Education**

H. H. Chun, M.D., Chairman  
 Elisabeth Anderson  
 Ralph B. Berry  
 Edward Chesne  
 Raymond Fujikami

Gary Globler  
 Lawrence H. Gordon  
 Ralph W. Hale  
 Edgar Ho  
 Reginald Ho  
 John Kim  
 Glenn Kokame  
 Ivar Larsen  
 Wayne Limber  
 James Lumeng  
 Dennis Maehara  
 Richard Mamiya  
 James A. Orbison  
 Frederick Reppun  
 Charles Tashima  
 Winfred Y. Lee (Commissioner)  
 John Morris (Maui)  
 James A. Mitchel (Hawaii)  
 Verne C. Waite (Kauai)  
 Mor McCarthy  
 Henry Oyama  
 Christian Gulbrandsen  
 Judson J. McNamara

#### **Peer Review**

Chew Mung Lum, M.D., Chairman  
 Argyl D. Bacon  
 Murray S. Berger  
 Ann Catts  
 H. H. Chun  
 William Dang  
 Gerald D. Faulkner  
 Lawrence Gordon  
 Victor Hay-Roe  
 John Lowrey  
 Stanley Saiki  
 R. Varian Sloan  
 Mitsuo Tottori  
 Winfred Y. Lee (Commissioner)  
 R. P. Wiperman (Hawaii)  
 Peter Kim (Kauai)  
 Kenneth B. McCollum (Maui)

#### **Professional Liability Insurance**

Alan Pavel, M.D., Chairman  
 Clifford Chang  
 Clifford Chock  
 William Dang  
 Bernard Fong  
 George Goto  
 Gail Li  
 Frank McDowell  
 Carolina Wong  
 Winfred Y. Lee (Commissioner)  
 R. P. Wiperman (Hawaii)  
 George Bracher (Hawaii)  
 Kenneth B. McCollum (Maui)  
 Patrick K. H. Aiu (Kauai)

#### **Public Affairs**

Rowlin L. Lichter, M.D., Chairman  
 Claude Caver  
 Clifford Chang  
 Robert Flowers  
 William Holmes  
 Doris Jasinski  
 Virgil Jobe  
 James Penoff  
 Thomas Richert  
 Kleona Rigney  
 William Sage  
 George Schnack  
 Stephen Tenby  
 K. S. Tom  
 Douglas B. Bell, II (Commissioner)  
 Paul Caldwell (Hawaii)  
 Burt Wade (Kauai)  
 J. Mark B. Sowers (Maui)

#### **Public Safety**

Truett Bennett, M.D., Chairman  
 Carl Boyer  
 Raymond C. Dusendschon  
 Robert L. May  
 Michael Okihiro

Kleona Rigney  
Calvin C. J. Sia (Commissioner)  
James F. Fleming (Maui)  
Haruto Okada (Hawaii)  
Eugene D. Rames (Kauai)

#### **Publications**

Frank McDowell, M.D., Chairman  
Samuel Allison  
Harry L. Arnold, Jr.  
Juris Bergmanis  
Bernard W. D. Fong  
Norman Goldstein  
W. Stanley Hartroft  
William J. Holmes  
Doris Jasinski  
Nobuyuki Nakasone  
L. Q. Pang  
Arnold Siemsen  
Winfred Y. Lee (Commissioner)  
M. A. Brennecke (Kauai)  
Egbert Fell (Hawaii)  
Robert Moser (Maui)

#### **School Health**

Roy Kuboyama, M.D., Chairman  
Fernando C. Atienza  
Donald F. B. Char  
Amelia Jacang  
Felix Lafferty  
George Murdock  
Ruth Oda  
Roy Niimi  
John Peyton  
Roy G. Smith  
Betty Soo  
Stephen Tenby  
Ann Barbara Ho Yee  
Calvin C. J. Sia (Commissioner)  
Katok Ang Chuang (Kauai)

Marion Hanlon (Maui)  
Ruth H. Matsuura (Hawaii)

#### **Site, Ad Hoc**

O. D. Pinkerton, Chairman  
Herbert Y. H. Chinn  
Winfred Y. Lee  
John J. Lowrey  
B. Allen Richardson  
Wayne Wong

#### **Substance Abuse**

Neal Winn, M.D., Chairman  
Robert Bell  
Frederick Dodge  
Virgil R. Jobe, Jr.  
Stanley Kobashigawa  
Felix Lafferty  
Robert J. Latta  
Bert Lum  
James Lumeng  
George W. Starbuck  
Calvin C. J. Sia (Commissioner)  
Marion Hanlon (Maui)  
William Kepler (Maui)  
John C. Melane (Hawaii)  
David R. Sears (Kauai)  
Charles Stewart (Maui)

#### **TV Radio**

Theodore K. L. Tseu, M.D., Chairman  
John Corboy  
Cesar B. deJesus  
Ellis Devereux  
Robert Flowers  
Gordon Ing  
Robert Jim  
Rowlin Lichter  
Hideo Namiki  
Yoshio Oda

James Penoff  
D. Venudhar Reddy  
Werner Schroffner  
Ignacio Torres  
Douglas B. Bell, II (Commissioner)  
Peter Claremont (Kauai)  
Helen Percy (Maui)  
J. Mark Sowers (Maui)  
Tokuso Taniguchi (Hawaii)  
Ron Pion

#### **Woman's Auxiliary**

R. Varian Sloan, M.D., Chairman  
Edward L. Chesne  
Philip M. Corboy  
Victor Hay-Roe  
Philip J. W. Lee  
Donald Dietrich (Maui)  
Verne L. Adams (Hawaii)  
Casper Rea (Kauai)

#### **Workmen's Compensation**

Albert Chun-Hoon, M.D., Co-chairman  
Theodore T. Tomita, M.D.  
Francis T. C. Au  
Walter W. Y. Chang  
Edward L. Chesne  
Raymond DeHay  
Raymond C. Dusendschon  
George Henry  
Kiyoshi Inouye  
Rowlin L. Lichter  
Herbert K. N. Luke  
Donald K. Maruyama  
Maurice W. Nicholson  
Roger Ogata  
L. Q. Pang  
R. Frederick Shepard  
Patrick J. Walsh  
Robert Hamblin (Kauai)  
John C. Melane (Hawaii)  
Edward B. Underwood (Maui)

## **PROCEEDINGS OF THE HOUSE OF DELEGATES**

### **118th Annual Meeting of the Hawaii Medical Association**

The first session of the House of Delegates of the Hawaii Medical Association was called to order by the President, Thomas P. Frissell, at 1:30 p.m., October 28, 1974, in the Bora Bora Room of the Ilikai Hotel.

Dr. R. Varian Sloan, Secretary, called the roll. Present were Thomas P. Frissell, Winfred Y. Lee, R. Varian Sloan, Grover H. Batten, James Matayoshi, J. Mark B. Sowers, Douglas B. Bell II, Ann B. Catts, Albert C.K. Chun-Hoon, William W.L. Dang, George Goto, J.I.F. Reppun, Peter Kim, Sakae Uehara, George H. Mills, Marion Hanlon, John F. Morris, William G. Kepler, Peter Claremont, DeWitt H. Smith, R.P. Wipperman, Rodman Miller, Francis K.L. Won, Edward Y. Yamada, Hing Hua Chun, George M. Ewing, Masaru Koike, Roy F. Kuboyama, Benjamin Lambiotte, Robert A. Nordyke, Alan Pavel, Theodore K.L. Tseu, Herbert S. Uemura, Neal E. Winn, and Henry Yokoyama.

Dr. Harry Arnold was appointed parliamentarian. Drs. Roy Kuboyama and Theodore Tseu were appointed sergeants-at-arms.

Dr. Rutledge Howard, Associate Director of the Department of Continuing Medical Education of the AMA, was introduced to the House of Delegates. Dr. Howard and Dr. Richard Opfell (California Medical Association) will survey the HMA Annual Meeting Program for Physician's Recognition Award Category I accreditation.

Dr. Malcolm C. Todd, AMA President, was asked to address the House. He reviewed AMA involvement in PSRO, Utilization and Peer Review, Continuing Medical Education and National Health Legislation.

The minutes of the 117th Annual Meeting as published in the July-August 1973 issue of the HAWAII MEDICAL JOURNAL were approved as published.

The reports of the President, Secretary, Treasurer and component societies were included in the delegates handbook and referred as indicated. The resolutions were read and assigned to reference committees.

Reference Committees were appointed as follows: Miscellaneous Business—Douglas B. Bell II, Albert C.K. Chun-Hoon, George M. Ewing, Neal Winn, and DeWitt Smith; Masaru Koike, J.I.F. Reppun, and Peter Kim; Public Health—Sakae Uehara, Roy Kuboyama, George Goto, and Robert A. Nordyke.

\* \* \*

The Reference Committees were in session October 28 beginning at 2:15 p.m.

\* \* \*

The second session of the House of Delegates was called to order on Wednesday, October 30, 1974, at 1:00 p.m.

Hawaii delegate R.P. Wipperman and Honolulu delegates Masaru Koike and Alan Pavel were absent the second day. Dr. Ruben Casile was seated as a delegate from Hawaii County. Drs. Fred Gilbert Jr., Stephen Tenby, and Patrick Walsh were seated as delegates from Honolulu County.

## **MISCELLANEOUS BUSINESS REFERENCE COMMITTEE**

### **BUREAU OF RESEARCH AND PLANNING**

#### **HOUSE ACTION: Adopted as follows:**

The Bureau of Research and Planning met twice during this period (May 1973-October 1974). Attendance was meager.



At its September 19, 1973 meeting, the Bureau voted to recommend to the HMA Council that HMA continue to accept Federal grant monies for projects if, after careful scrutiny, they appear to be of benefit to physicians and their patients, and if the project is not so large that it will tax the capacity of HMA in terms of space and manpower. The Bureau also recommended to the Council that HMA should NOT undertake the management and director of PSRO Hawaii-Guam-Samoa.

At its meeting on July 16, 1974, the Bureau considered two of the Position Papers on Health Care submitted to the Governor by the Hawaii Public Health Association. The chairman was instructed to coordinate a suitable response with Betty Anderson, M.D. for submission to the Council.

#### *Recommendation:*

That a compendium of HMA policies and position stands, in loose leaf form with each policy dated, be published, not only as a useful reference guide for health agencies, governmental agencies and the Legislature, but also for the convenience of HMA's officers, councillors, committees and staff. This Compendium shall be compiled by the Bureau of Research and Planning with final approval by the House of Delegates or Council.

J.I. FREDERICK REPPUN, M.D.

## COMMISSION ON INTERNAL AFFAIRS

### HOUSE ACTION: Adopted as follows:

The Commission on Internal Affairs consists of the following committees: Bylaws and Parliamentary, Convention and Woman's Auxiliary Advisory Committees. The following is a brief report of the Committees' actions and recommendations:

#### **Bylaws**

There were no requests for Bylaws changes during 1973-74 and therefore, the committee had no occasion to meet.

#### **Convention**

The Convention Committee has met diligently to formulate plans for the 118th Annual Meeting of the HMA. There are several new features in the arrangements of the meetings this year. All scientific sessions are scheduled during the morning hours and the only evening session will be the annual Fireside Chats of the Hawaii Thoracic Society. The annual banquet has been replaced this year by a special luncheon which will be held on Thursday, October 31. Installation of officers and presentation of awards will be part of the luncheon program with the ladies being invited. Sports events were scheduled throughout late September and October and prizes for these events will be awarded at the annual Sportsmen's Night Party to be held on Friday, November 1. A special effort was made to attract as many mainland physicians as possible to the annual meeting which coincides with Aloha Week festivities.

Plans for the 1975 AMA Clinical Session to be held in Honolulu are well underway. Dr. Herbert Uemura has been selected by the AMA to chair the scientific program for the 1975 Clinical Session.

With the large number of scientific courses to be offered at the AMA Convention, the Convention Committee believes HMA should not plan for a scientific session in 1975. The 1975 HMA House of Delegates could meet either before, during, or after the AMA Clinical Session.

#### **Woman's Auxiliary**

At various times throughout the year, the commissioner met informally with representatives of the Auxiliary. He also represented the HMA at the Auxiliary's Annual Meeting which honored Mrs. Betty Liljestrand, incoming President of the AMA's Auxiliary.

#### *Recommendations:*

1. In view of the extensive scientific program to be presented at the AMA Clinical Session in Honolulu, Novem-

ber 30-December 4, 1975, it is recommended that no HMA scientific program be planned for 1975.

2. That the dates of the House of Delegates meetings for 1975 be determined by the Council.
3. All reports and resolutions should be submitted at least one month prior to the House of Delegates Meeting. Emergency resolutions can continue to be introduced as previously stated in the Modus Operandi of the House of Delegates.

R. VARIAN SLOAN, M.D.

## COMMISSION ON LEGISLATION

### HOUSE ACTION: Adopted as follows:

The Seventh State Legislature 1974 was a continuation of the previous session of the Seventh Legislature in 1973. Largely through the capable guidance of our legislative counsel, Mr. Ben Kaito, five major legislative proposals of the Association passed during the session of 1973. The only major proposal that did not pass was the bill to allow minors between 14 years and the age of majority consent to medical care and services for venereal disease, pregnancy, family planning and substance abuse. This bill will be re-introduced.

Since the last House of Delegates of the HMA did not mandate any major legislative proposal and because our former counsel was unavailable, the Committee did not request the Council of the HMA to retain a legislative counsel during the 1974 session of the state legislature.

As expected, the 1974 session of the legislature was very active in bills and resolutions relating to health. Working closely with the many committees and commissions of the Association, the Legislative Committee took positions and presented testimony on most of the significant legislative proposals which would affect the medical profession. Anyone interested in any of the actions taken by the Legislative Committee is invited to call our legislative secretary, Mrs. Becky Kendro, who lived up to our expectations in keeping the committee apprised of the rapidly changing scene in the state legislature. The active participation of the staff and many members of the Association in legislative matters in which particular expertise was necessary is gratefully acknowledged.

The following measures passed by the legislature were initiated by the Association:

1. Resolution requesting the Hawaii School of Medicine to conduct a study of, and prepare plans for a state medical examiner system.
2. Appropriation of \$400,000 for the School Health Program.
3. Denial of school admission to those children without appropriate immunization and examination.
4. Compulsory health insurance for newborn children.

The following were some of the bills which were passed by the Legislature over the objections of the Association:

1. Repeal of all requirements for the Director of Health.
2. Certificate of need legislation and establishment of a Comprehensive Planning Authority.
3. Licensing of radiologic technologists.
4. Creation of a board of non-medical acupuncture practitioners.

The following were some of the measures opposed by the HMA and were not enacted by the Legislature but they will undoubtedly be reintroduced in the next session of the Legislature:

1. Prohibition of physician ownership of pharmacies, physician interest in pharmaceutical companies and dispensing of drugs with minor exceptions.
2. Requirement of generic names as well as brand names on all prescriptions.
3. Requirement that all records of minors who at any time were in custody or detained by a law enforcement agency be expunged.
4. Requirement of official triplicate prescription for all controlled substances to prevent forgeries and thefts.

If the next session of the Legislature involves many bills of vital concern to the medical profession, the need to retain a legislative counsel from within the party in power may become necessary.

**Budget Request:**

Legislative Counsel	\$7,500.00
Today's Health	150.00
Miscellaneous	100.00
TOTAL:	\$7,750.00

**Recommendations:**

1. That the budget of the Legislative Committee be approved and the services of a legislative counsel be retained; provided that the HMA Council approves the necessity of retaining a legislative counsel.
2. That the efficient services of the legislative secretary, Mrs. Becky Kendro, be commended.
3. That a letter be sent to the next Governor and all members of the Eighth Legislature expressing HMA's strong stand that the Director of the Department of Health be a Medical Doctor with material public health experience.

GEORGE GOIO, M.D.

## COMMISSION ON INTERPROFESSIONAL AND PUBLIC AFFAIRS

**HOUSE ACTION:** Adopted as follows

**Public Affairs**

In conjunction with the Hawaii Newspaper Agency, represented by Mrs. Barbara Edwards, this committee sponsored several more public forums at Farrington High School Auditorium and one at the Hilo Electric Company Auditorium. Dr. Rowlin Lichter was a popular and successful moderator for each. The forum on October 30, 1973 on The Economics of Medicine was poorly received by the audience but the other programs, two on Sexual Problems, the one in Hilo on Heart Disease and the last one of Emergency Medical Care in September 1974 were very successful. Further forums are planned and may be held in other locations in the state for wider exposure and to use other physician talent. It should be noted that no HMA funds have been used for these programs.

Several complaints on possible "Quackery" and also unethical advertising by physicians were investigated by the Committee including one of HCG injections with a 500 calorie diet regime. No public or legal actions were taken on any of them.

The Committee selected two winners for medical topics at the 1974 Hawaiian Science and Engineering Fair as it has for several years.

A 1974 News Media Award will be made at the HMA annual meeting.

A 1974 winner for the A.H. Robins "HMA Physician of the Year" award was selected.

**Interprofessional Liaison**

This Committee, chaired by Dr. George Schnack, and composed of physicians and lawyers was quite active and had several productive meetings. A study on results of medical malpractice cases filed in Honolulu County is nearing completion. Many discussions on mutual problems of physicians and lawyers such as etiquette in personal injury cases, physician's reports to attorneys, etc., were held. This Committee plans to continue. Dr. Schnack's report also describes the condition of the "Hawaii Association of Professions" where no meetings have been held in the last year and the secretary of the association has moved to Kona. However, Dr. Schnack, as legislative liaison for the association screened all bills introduced at the last legislative session for relevance to problems of the professions.

**Intraprofessional Relations**

This Committee functioned on an informal basis through the University of Hawaii to promote health careers. Be-

cause of the high volume of applicants for medical school, emphasis was placed on paramedical careers. For Temporary Disability Insurance, the Committee developed guidelines for pregnancy and circulated them to appropriate bodies. The California "Tel Med" program of taped five minutes health messages that could be used either for radio or telephone was investigated and found applicable to Hawaii but would require funds to operate.

**TV-Radio**

*HMA Hotline*, the medical TV program on KHVV sponsored by HMA, was discontinued in late 1973 because of the lack of funds. Attempts to obtain funds from various sources have been unsuccessful and prospects for the future look bleak.

However, beginning in February, 1974 through the courtesy of Dr. Ronald Pion, the moderator, and KHVV-Radio, members of HMA have participated in a one hour medical program each Thursday evening on KHVV at no cost to HMA. This program has been quite successful and well received. Dr. Pion resigned from the program in September, 1974 but Dr. Robert Corsini, a clinical psychologist, has taken over as moderator. Indications are that this program will probably continue.

The Filipino and Japanese Speakers Bureaus have been active through the year, especially on radio.

The Chairmen of both this committee and the Public Affairs Committee feel it can be amalgamated into the Public Affairs Committee now that there is no TV program to plan.

**Health Facilities**

This Committee met once to evaluate the proposed expansion of Pacific Institute of Rehabilitation Medicine Facilities. Under provisions of Chapter 323, Hawaii Revised Statutes and Section 1122 of Title XI of the Social Security Act, plans for various changes and expansions of health care facilities costing more than \$100,000 must be evaluated to assure that Federal Funds appropriated are not used to support unnecessary capital expenditures. Evaluation is to include all phases of health care needs of the area as well as the specifics of the proposed project including its necessity in relation to total area health care and its costs and cost containment. This evaluation is done by the State Comprehensive Health Planning Agency and its review panel appointed by the Governor; this agency in turn had requested HMA's recommendations in this case. Our Committee felt it could not determine the exact size of the expansion desirable as it had inadequate knowledge of the overall area health care needs and especially in relationship to other facilities that might be planning expansion. They did endorse the concept however that more facilities of the type PIRM could provide were needed and that PIRM could best provide them.

This Committee has not evaluated other requests for expansion of Health Facilities as all other such requests are for expenditures affecting only a single county and the evaluation was referred to them.

This Committee also will be the Utilization of Health Facilities evaluator for PSRO area when PSRO is more fully implemented. Only a preliminary meeting toward this goal involving all the UR Committees in the PSRO area has been held.

**Recommendations:**

1. The Public Affairs Committee should continue to pursue further public forums in cooperation with Hawaii Newspaper Agency and other functions should continue as before.
2. The 1975 Hawaii Science and Engineering Fair should be supported by a \$100 donation and a \$50.00 first prize and a \$25.00 second prize should be awarded by HMA for projects on medical topics. Another \$25.00 should be appropriated to cover costs of printing and framing the awards. This support demonstrates HMA's interest in young science talent.
3. The "News Media Award" of \$500.00 should be continued as before.



4. The Interprofessional, Intraprofessional and Health Facilities Committees should continue and pursue their present directions even more vigorously.
5. HMA's membership in the Hawaii Association of Professions should be continued and efforts to revitalize the association should be made by HMA's representatives. \$100.00 for annual dues should be appropriated.
6. Vigorous leadership is still needed for television and radio programs and the TV-Radio Committee should be continued.
7. Radio programs similar to that on KHVH should be encouraged on neighbor islands.
8. The possibility of HMA returning to a TV program should be attempted if suitable financial arrangements can be made.
9. The Filipino and Japanese Language Speakers Bureaus should continue unchanged.
10. An appropriation of \$300 should be allowed the Public Affairs Committee to finish the medical questionnaire of HMA members.
11. The Health Facilities Committee be delegated to study and propose amendments to the Legislative Committee regarding the Comprehensive Health Planning law, especially the "certificate of need" provisions. This Committee should propose a clear definition of "health provider" and "consumer" in this context.

DOUGLAS B. BELL II, M.D.

## COMMISSION ON MEDICAL SERVICES

### HOUSE ACTION: Adopted as follows

The Medical Services Commission includes the Workmen's Compensation Committee, the Fee Survey Committee, and the Ad Hoc Committee on HMA-HMSA Medicaid.

The Workmen's Compensation Committee has been involved this year in two major areas. One is in the vocational rehabilitation of the injured worker and the other is in the revision of the Workmen's Compensation Fee Schedule.

Several meetings were held with the representatives of the insurance industry, the Department of Labor, labor unions, and the Division of Vocational Rehabilitation. The consensus of the participants was that vocational rehabilitation of the injured worker is not very successful under our present program. The Department of Labor deputy in charge of Workmen's Compensation, Mr. Orlando Watanabe, indicated an interest in continuing the evaluation of the vocational rehabilitation process. He felt that the Workmen's Compensation Bureau and the Department of Labor must be more directly involved with this process. We have indicated our interest in cooperating with the Workmen's Compensation Bureau and the Division of Vocational Rehabilitation fully in any efforts they may make toward vocational rehabilitation.

Public hearings were held on October 15 and 17 in Honolulu for the revision of the Workmen's Compensation Fee Schedule to be effective January 1, 1975. Representing the Hawaii Medical Association was Dr. Rowlin Lichter who testified in favor of adopting the concept of usual, customary, and reasonable. He also urged the adoption of the Hawaii Relative Value Study of 1970, for current use and the use of the most current Hawaii Relative Value Study in the future as a basis for the physicians' fees computation. He also testified as to the objection of the Hawaii Medical Association to the 25 per cent differential being given to Board certified specialists.

The Ad Hoc Committee on HMA-HMSA-Medicaid has not met. The council voted to table a motion by the committee to approve a joint proposal of the Ad Hoc Committee and HMSA for peer review of the Medicaid program. At the June 1974 Council meeting, the HMA Executive Committee recommended that the ad hoc committee on HMA-HMSA-Medicaid be disbanded.

The Fee Survey Committee has continued to meet regularly and has compiled a list of additions and changes in

the 1970 Hawaii Relative Value Studies. The Fee Survey Committee is continually updating the RVS and will continue to do so in the future.

### Recommendations:

1. That the Workmen's Compensation Committee continue to work with the Department of Labor in all areas of mutual interest.
2. That the Fee Survey Committee consider the feasibility and need for a revision of the 1970 RVS.
3. That the House approve the budget request of the Fee Survey Committee, which is included in the 1975 Proposed Budget.
4. That the Fee Survey Committee develop guidelines to obtain input from appropriate and interested agencies in the revision of the RVS.

ALBERT C.K. CHUN-HOON, M.D.

## PRESIDENT

### HOUSE ACTION: Filed

After many hours of sober thought and reflection, it is my decision to forego the usual President's Report.

Such a report can be but a summary of all the reports by the various commissioners and committee chairmen. And each of those reports deserves to be read in its entirety and the contents carefully evaluated. The authors of these reports have spent much thought and effort in their evaluations and conclusions.

I have no comments or recommendations to be made to the Hawaii Medical Association.

THOMAS P. FRISSELL, M.D.

## SECRETARY

### HOUSE ACTION: Filed as printed

The total active membership of the Association as of December 31, 1973, was 909, an increase of 46 compared to December 31, 1972, which was 863. The special members numbered 35, an increase of 11 from the previous year. Of the 909 active members, 97 were granted due waiver, an increase of 20 over the previous year.

Ten members died in 1973 and 1974: Robert C.H. Chung, T. Kanda, Martin H. Lichter, Samuel E. Wallis, Richard Durrant, Stanley E. Kobashigawa, Clayton A. Johnson, Alexander E. Lee, Harold E. Crawford, and Frederick K. Lam.

Unaffiliated physicians were reported by the counties as follows: Hawaii—6, Honolulu—278, Maui—6, and Kauai—5.

By counties, the active membership was made up as follows as of December 31, 1973:

COUNTY	ACTIVE DUES PAYING	ACTIVE DUES WAIVED	TOTAL
Hawaii	56	13	69
Honolulu	670	76	746
Maui	53	4	57
Kauai	33	4	37
	812	97	909

As of August 30, 1974, the active membership has increased to a total of 919 members.

Since the last annual meeting, there have been 9 Council meetings that were held on July 13, September 14 and November 2, 1973; and January 11, April 5, June 7, July 16, August 2, and October 4, 1974. The officers also met on 30 occasions during this period. Actions taken at these meetings were approved by the Council.

At the July 13, 1973 meeting, officers of the Community Research Bureau were elected: B. Allen Richardson, President; Theodore T. Tomita, Vice-President; O.D. Pinkerton, Secretary; Grover H. Batten, Treasurer; and Thomas P. Frissell, Winfred Y. Lee, William E. Iaconetti, Herbert Y.H.

Chinn, John J. Lowrey, George H. Mills, William W. L. Dang, Robert Berry, John Withers and DeWitt H. Smith, Trustees. The treasurer reported that although H contributors to the Physician's Benevolent Fund had asked for the return of their contribution, the Finance Committee would proceed with their investigation of investment possibilities.

The Communicable Disease Committee recommended endorsement of new public health regulations which will allow tuberculin skin testing in lieu of chest x-rays of certain persons. A seminar on the Medical Aspects of Learning Disabilities for Department of Education teachers and counselors was scheduled for August 6-8, 1973.

It was agreed that the Pediatric Nurse Practitioners have not yet developed their skills sufficiently to allow them to function alone in the EPSDT program. This information was transmitted to the Department of Health.

A planning committee of the Pacific Institute of Rehabilitation was formed to develop long-range plans for the PIRM. Liaison with PIRM will be the responsibility of the HMA Commissioner for Health Services.

The Ad Hoc Committee on the HMA HMSA DSS Proposal was requested to continue to work out an agreement between HMA and HMSA Medicaid Proposal based on the discussions of the Council meeting and present the proposal at the next Council meeting.

Drs. William Dang, William Hindle, and Elmer Johnson were elected as members of the Finance Committee. Dr. Fred Reppun was elected as chairman of the Bureau of Research and Planning; Drs. Claude V. Caver, Lawrence Gordon, and John F. Morris were also elected for three-year terms.

A community-based Cancer Research Center, with clinical work carried out in the community hospitals, and a small central headquarters for administrative purposes was favored by the Council. Dr. Frissell and HMA officers met with the NCI Site Visitors on August 27, 1973.

The Council agreed that a committee should be formed to investigate the feasibility of studying hypertension and that the chief-of-staff or president of the executive board be invited from the following: Kuakini, Queen's, and St. Francis Hospitals, Hawaii Heart Association, Medical School and other deemed appropriate by the chairman.

The Foundation President reported on plans to implement PSRO in Hawaii.

Mr. Won was appointed as project coordinator for the EMCRO project which received a six-month grant for an external evaluation by Arthur D. Little and Company.

HMA participated in the selection of a new dean for the School of Public Health at the University of Hawaii.

A list of doctors who might be willing to serve as arbitrators was requested by the Arbitration Association. The Council did not feel HMA should be involved in the selection of arbiters because the request was limited to one contract of a single closed panel group.

A new draft of the Guidelines for the HMA/HMSA Medicaid program was presented by the Ad Hoc Committee at the September 14, 1973 meeting. The proposal was tabled until January 1974.

Mrs. Florence Goto and Mrs. Kay Benson of the Women's Auxiliary questioned whether they should reschedule their annual meeting to coincide with HMA's annual meeting. HMA felt that they should do whatever they thought was best.

AMA asked for nominees to the chairmanship of the Scientific Program Committee for the 1975 Clinical Session.

In response to a Senate Resolution relating to relicensure, the Medical Education Committee was asked to work with the Board of Medical Examiners. Drs. Frissell and Chun represented the Association at meetings of the American Lung Association, who are also involved in this subject.

The Council confirmed that substance abuse is a medical problem and should be reimbursable by third-party carriers as well as the Department of Social Services.

The Chronic Illness Committee was directed to investigate the feasibility of studying hypertension in Hawaii.

The TV Committee was asked to investigate ways of continuing the HMA Hotline at no expense to the Association.

The Council concurred that a letter be written to Hawaii's congressmen regarding inequities in the PSRO law and pointing out HMA's experience with the EMCRO project.

It was voted to endorse the Pacific Health Research Institute Study on the Prevention of Coronary Heart Disease.

Dr. Frissell asked Dr. Elisabeth Anderson to serve as Assistant to the President for 1974.

At the November 2, 1973 Council Meeting the Council approved the proposal for a grant on the Hawaii Cooperative Hypertension Program to be submitted by HMA. Also approved was a motion to seek other avenues of funding a hypertension program if the grant is not approved.

The Department of Health asked for HMA support of a bill which redefines "a totally disabled person" under the present statutes. The Legislative Committee was directed to support the amendment.

Endorsement was given to the St. Francis Hospital Integrated Cancer Rehabilitation Services.

Legislation proposed by the Communicable Disease Committee, which would make immunization mandatory prior to school entry, was lost to a tie vote.

A Department of Health regulation which would regulate compressed air in scuba tanks as a consumer product and be tested accordingly was supported.

The Substance Abuse Committee asked that a committee be formed to study acupuncture. Council noted a Department of Health Committee already exists and includes HMA representatives.

A report and the recommended 1974 budget was presented by the Finance Committee. The treasurer reported an investment management account utilizing funds previously known as the Physicians Benevolent Fund was established. It was also announced that HMA was designated as the grantee for the EMS project effective November 1, 1973. The proposed 1974 budget was reviewed in detail.

The Council voted to file the financial statement for September 1973 subject to audit; to accept the recommendation of the Publications Committee and Finance Committee to publish the HAWAII MEDICAL JOURNAL on a monthly basis in 1974; to approve the committee budget for 1974; to approve the income items for the 1974 budget; to approve the general expense items for the 1974 budget; to continue the Common Fund allocation for 1974 on a 60 (HMA)—40 (HCMS) basis and to conduct time studies during the year using equivalent dates, and to review the Common Fund prior to the next House of Delegates session (September 1974).

The Council met in Executive Session and then voted to increase the salary of the Executive Director by 15 percent of his present base salary and that his salary be reviewed annually; to approve the Common Fund expenses, including the salary increases; to approve the 1974 budget in total; to increase the HMA dues for 1974 by \$65.00 per member; and to include a 2% Christmas bonus for employees in 1973 and 1974.

The Ad Hoc Committee to Evaluate the Hawaii EMCRO Final Report met on several occasions and presented their report for Council review. The Council agreed that the report should be reviewed by Drs. Winfred Y. Lee, J.I.F. Reppun, and William E. Iaconetti and expanded to include some of the comments discussed and presented to Arthur D. Little and Company who evaluated the EMCRO project.



The Foundation Board's activities regarding PSRO were reviewed by Dr. Winfred Lee.

Internal and employment policies for HMA were distributed to the Council and each member was asked to submit additional information for the Policy handbook. Dr. Batten reported that the Ad Hoc Committee on the Cancer Research Center Site is considering the Mabel Smyth Building site for administrative offices.

On December 1, 1973 the AMA meeting will be held in Anaheim. The AMA Delegate was requested to confer with the California delegation requesting the addition of more practicing physicians on the Council of Medical Education.

A public hearing on rules and regulations relating to clinical laboratories was scheduled by the Department of Health. Letters were sent to the Hawaii Society of Internal Medicine and the Hawaii Society of Pathologists in an effort to coordinate the position of the physicians on this subject.

Support was given to the use of proficiency testing by methods such as those developed by the American Society of Pathologists; and it was agreed that detailed requirements for the technical staff be deleted from the regulations; and that the technician's society develop the requirements for the technicians and the HMA for the directorships of labs.

Discussion was held regarding the submission of a resolution to the AMA House of Delegates requesting the Judicial Council to reconsider their position relative to the ethical nature of adding interest charges to delinquent accounts.

The publishers of the *Physician's Desk Reference* were requested to list controlled substances by schedule and to issue supplements when changes occur. The Communicable Disease and School Health Committee recommend legislation be drafted regarding completion of physical examination and immunizations prior to first entry to school and the Council concurred. The Oncology Nursing Program in Community Hospitals proposed by Queen's Medical Center was endorsed. Approval was granted for a questionnaire to be sent to all HMA members regarding interest in treating breast cancer problems when referred from the Pacific Health Research Institute Project. HMA endorsed the concept of having a cancer coordinator in all community hospitals. It was also voted to ask the Cancer Committee to investigate the services rendered in mobile cancer units being certain that patients are aware that the tests received are for cancer detection purposes only.

The Physician's Recognition Award was accepted and all physicians were urged to qualify for this program. It was further agreed to write the Board of Medical Examiners recommending that no legislation on recertification or relicensure of physicians be prepared at this time in view of the continuing medical education program underway.

HMA Hotline has not been successful in obtaining additional funds to operate. The committee is still investigating avenues for continuation of the program.

Plans for the 1975 AMA Clinical Session are being coordinated through the HMA Convention Committee. Dr. Herbert Uemura was selected by the AMA as chairman of the scientific program for the convention.

The Cancer Commission plans a new contract with the Research Corporation for the Hawaii Tumor Registry operation in the SEER Program.

The Lauhala Street site for the administrative offices of the Cancer Research Center was selected.

The Oahu Medicom System purchased under the EMS Program was dedicated on January 10, 1974.

An evaluation of the Hawaii EMCRO project was accepted by the Council.

The Foundation reported the State of Hawaii and American Samoa have been designated as a single PSRO area.

The February financial report was presented for review at the April 5, 1974 meeting. The Treasurer's report was filed subject to audit. Actual expenses for the AMA meeting in June 1974, not to exceed \$75/day, was approved by the Council. It was further recommended that the Finance Committee develop guidelines for travel expenses.

The AMA-ERF check for the School of Medicine, University of Hawaii, will be presented at the annual meeting of the Auxiliary.

The Medical Education Committee's plans to develop a local accreditation program for the Physician's Recognition Award was approved by the Council.

A resolution to the AMA House of Delegates calling for the Judicial Council to reappraise their position relative to the ethical nature of interest charges to be levied on delinquent accounts was approved for submission.

For the annual meeting to be held October 29-November 1, 1974, the Council approved the registration fee of \$100 for non-HMA members and does not include any tickets for social or sports activities. The Council agreed that the 1975 AMA Clinical Session serves as HMA's scientific session and that this matter be discussed at the House of Delegates' meeting.

The Public Affairs Committee reported plans for a series of public forums on sexuality in cooperation with the Hawaii Newspaper Agency.

No TV programs have been aired since January due to lack of funds. The Health Facilities and Chronic Disease Committees evaluated a request from the Pacific Institute of Rehabilitation Medicine (PIRM) re the enlargement of their facilities.

A listing of legislation relating to health was circulated for information.

Support was given to the proposal of Pacific Institution of Rehabilitation Medicine to expand present services and specialized long-term rehabilitation; such action does not necessarily endorse additional expansion of general long-term beds by PIRM or any other facility other than as described in the proposal.

A news release was approved by the Council concerning a suspected measles outbreak.

Council endorsed a study of susceptibility to measles and poliomyelitis among children in the City and County of Honolulu and requested a copy from the Department of Tropical Medicine when the study is completed.

The AMA position regarding Medical Evaluation for Participation in Sports, contact and noncontact, was circulated to all HMA members.

Questions regarding the HMA/HMSA/DDS Proposal were referred to the Executive Committee for clarification at the next Council meeting.

HMA strongly recommended that the director of the Cancer Research Center be a Medical Doctor.

A report on the Hawaii EMCRO was received from Arthur D. Little and Company and Drs. Winfred Y. Lee, William E. Iaconetti, and J.I.F. Reppun were appointed to review the report and present their recommendations to the Council.

The Foundation was advised that the final area designation for Hawaii also includes the Trust Territory, Guam, and American Samoa.

A resolution regarding PSRO was submitted by Maui County Medical Society and adopted as follows: "Be it resolved, that the Hawaii Medical Association be requested to go on record as opposing the PSRO law, while continuing through the Foundation to comply with the law until repealed or declared invalid and to develop more refined Peer Review procedures for use when deemed advisable or necessary."

Council was advised that action on the proposed amendments to Public Health Regulations relating to Clinical Laboratories was deferred pending a request to the Attorney General regarding the jurisdiction of the Department of Health over clinical laboratories operated by M.D.'s.

Drs. George H. Mills, Rodney T. West, and DeWitt H. Smith were elected (Dr. R. P. Wipperfurth, alternate for Dr. Smith) to the Foundation Board of Trustees for 3-year terms beginning January 1, 1974.

The National Heart and Lung Advisory Council advised it did not approve the HMA research grant application for a hypertension study. A letter requesting changes in the Veteran's Administration medical fee schedule was circulated. The Department of Health asked HMA to issue a notice to all physicians suggesting that blood pressure readings be done routinely on every patient seen in the office. A Senate resolution requesting the health professions and health providers to recommend legislation for continuing medical education and relicensure programs was referred to the Medical Education Committee. An invitation to submit health project proposals to Regional Medical Program was reviewed. The Council voted to extend congratulations of HMA to Dr. Satoru Izutsu, recently appointed Executive Director of RMP.

The April financial report was presented for review and filed subject to audit at the June 7, 1974 meeting. Journal income is presently behind what was projected and a complete evaluation of the Journal is underway. The Council accepted the Finance Committee's recommendation that funds presently in savings and loan companies be converted to other financial institutions which yield a higher rate of interest and that the Finance Committee also be permitted short-term commercial paper or Treasury Bonds.

The Hawaii Foundation for Medical Care has submitted a six-month planning grant request for the Hawaii PSRO.

The Fee Survey Committee requested funds to send a committee representative to meet with the California Fee Survey Committee and the Council decided to give the Executive Committee the prerogative of sending a representative to California.

A new HMA-HCMS ad hoc committee has been formed to explore the development of a multi-purpose building for HMA/HCMS headquarters. Dr. Grover Batten, as the HMA representative, was instructed to continue the investigation.

The Executive Committee reported that the Department of Social Services has not responded to the HMA proposal presented to them and that the ad hoc committee on HMA/HMSA/DSS be disbanded.

HMA's appointees to the Executive Committee of the Cancer Research Center, Drs. Herbert Y. H. Chinn, Andrew Morgan, Thomas K. L. Lau, and Henry Oyama, were approved by the Council.

Grant requests to continue the EMS program and a supplemental grant for training emergency medical technicians on neighbor islands have been submitted to Washington.

Maui County Medical Society referred a letter to HMA from the Molokai Community Action Council requesting suggestions for better medical services for the people of Molokai. The Executive Committee voted to send Drs. J. I. F. Reppun and William E. Iaconetti to Molokai to investigate this matter.

HMA President Frissell reported he had met with RMP representatives to discuss physician representation on the Regional Advisory Group.

A special Council meeting on July 16, 1974 was called to discuss further developments in the pursuit of a new home for HMA-HCMS. Representatives from a real estate management firm and architectural agency presented a model of the proposed building to be located between Beretania and Hotel Streets near Ward Avenue. The Council con-

cluded with the Honolulu County Medical Society Board of Governors that plans for a new site be pursued further.

At the August 2, 1974 meeting the Finance Committee reported the HAWAII MEDICAL JOURNAL shows a significant deficit for 1974. The Council agreed that the House of Delegates must decide on the future continuation of the Journal and recommended that the HMA officers determine which issues of the HAWAII MEDICAL JOURNAL will be published for 1974.

The AMA Council on Medical Education has approved the Hawaii Medical Association as the accrediting body locally for continuing medical education programs for a one-year period. It was voted to charge a standard fee of \$200 to cover expenses incurred in carrying out surveys.

The HMA Fee Survey Committee was asked to study the matter of physicians' fee payments of crippled children's services.

The HMA stand regarding the immunization clinics and support of a total immunization program for the State was reaffirmed and the Council agreed there should be a medical home for all children and that "one-shot" clinics are not the answer for a total program. It was further agreed the Department of Health should make available free immunizations for those in need (child health conferences, TB testing) and support the school health program, as the focus for identification and referrals of needs.

The recommendation of the Substance Abuse Committee was accepted as follows: to unify detoxification and methadone maintenance treatment of drug addicts under one administrative organization and to request the Department of Social Services and Housing to pay for medical services rendered to drug dependent persons, including detoxification and other such treatments as methadone maintenance.

The Convention Committee's recommendation that the banquet be cancelled for this year in lieu of the luncheon was not accepted by the Council.

The Cancer Center was reminded that the Executive Committee of the Cancer Center should be twelve in number, including four representatives from the University of Hawaii, four from the Hawaii Medical Association, two from the American Cancer Society, one from the Hawaii Hospital Association, one from the Department of Health, and the Executive Director of the Research Corporation. The HMA believes the Executive Committee should be executive in nature, rather than advisory, to assure strong community participation.

A planning contract effective June 28, 1974 was awarded the Hawaii Foundation for Medical Care (HFMC) for a six-month PSRO planning grant. The original contract provided for an independent organization for PSRO within the HFMC; however, the DHEW felt that this was unacceptable and Pacific PSRO, Inc. (PacPSRO) was created and approved by the HFMC Board of Trustees as the vehicle for planning and implementation of PSRO activities.

The EMS training program for the period of 11/1/74-6/30/75 was funded by the Department of Health, Education and Welfare.

The City & County of Honolulu emergency service proposal was also funded; however, the neighbor island proposal for implementation was not approved as submitted by the Department of Health. It was suggested that the Department of Health submit a planning grant for the period January 1, 1975 to June 30, 1975 and then request an implementation grant.

Council approved the submission of positive responses to the issue papers requested by the Governor's CORE Committee.

The Bureau of Research and Planning plans to develop a policy manual for the HMA.



Drs. Iaconetti and Reppun and Mr. Thorson were sent to Molokai to confer with Molokai physicians and representatives of the Community Action group regarding improved health care. The HMA will attempt to interest physicians in practicing medicine in Molokai. A university program to rotate interns and residents to Molokai with faculty advisors is also underway.

A grant of \$230,000 has been received by the Waianae Comprehensive Health Center.

The Hawaii Tumor Registry will relocate to new quarters in the Bishop Trust Building.

Several meetings have been held regarding the proposed development which will eventually house the HMA-HCMS and its affiliate organizations.

A Physicians' Action Group has been formed under the leadership of the Hawaii Society of Internal Medicine to seek more equitable payment of services rendered by physicians to patients in the Medicaid program.

A five percent deviation in physicians and surgeons professional liability insurance rates through Argonaut Insurance Company became effective July 1, 1974.

The Council was reminded that the HMA needs to establish definite long-range plans regarding HMA participation in various medical projects. Chronic disease programs are appearing in the community and require physician leadership. Council was asked to recommend that the medical association provide this leadership.

The October 4, 1974 meeting was devoted primarily to discussion of the proposed budget for 1975. Approval was given to continue the Common Fund allocation of cost sharing on a 60 (HMA)-40 (HCMS) basis in 1975.

The Fee Survey Questionnaire conducted in August 1974 was reviewed and approval was granted to use the modal conversion factors in fee negotiations.

Dr. Rowlin Lichter and Dr. Albert Chun-Hoon were designated to represent the association at the forthcoming Workmen's Compensation hearings on the medical fee schedule.

The President announced the appointment of an ad hoc committee on medical research.

Members of the Council present at the August 2, 1974 meeting were polled and asked to reconsider their decision regarding the 1974 banquet. A majority agreed that a luncheon should be held in lieu of a banquet in 1974.

R. VARIAN SLOAN, M.D.

MABEL SMYTH BOARD

HOUSE ACTION: Filed

The Mabel Smyth Board was composed of the following representatives in 1974:

- Grover H. Batten, M.D., Chairman, Hawaii Medical Association
- Elmer Johnson, M.D., Hawaii Medical Association
- William W.L. Dang, M.D., Alternate, Hawaii Medical Association
- Mrs. Althea Kamau, Secretary, Hawaii Nurses' Association
- Mrs. Virginia Chang, Hawaii Nurses' Association
- Mrs. Christine Taylor, Alternate, Hawaii Nurses' Association
- Mr. Alex Smith, Queen's Hospital
- Mr. Lester Gamble, Alternate, Queen's Hospital

*Building Improvements:* The Board of Management approved an extensive interior painting contract. All of the second floor offices and kitchen were repainted along with the first floor lounge, lanai, and kitchen.

*Nurses and Physicians Exchange:* The expansion of the telephone facilities, designed to more efficiently handle calls, necessitated changing the phone numbers effective March 1, 1974. Negotiations with General Electric Com-

pany resulted in their agreement to buy back the unsatisfactory G.E. radio pagers for \$11,000.00. The units were purchased in July, 1971 for the sum of \$35,685.00. The buy-out price to Hawaii Leasing on the purchase contract amounted to \$22,505.11. The loss to the Nurses & Physicians Exchange of \$11,505.11 was covered by funds held in the Mable L. Smyth Memorial Building Fund account at Territorial Savings and Loan Association. In August the Nurses and Physicians Exchange entered into an agreement with Radio Call Corporation to rent the newest in Motorola voice-receiving radios including transmitting facilities and maintenance. Additional transmitters will be installed to provide island-wide paging coverage with the exception of the far north shore. The new equipment has been enthusiastically accepted by the physicians using these new units.

The Board of Management voted to increase the Private Duty R.N. and L.P.N. dues by \$20.00 a year, effective July 1, 1974. At the annual meeting of the Board, it was agreed to increase the answering service fees to all physicians to \$19.00 per month including tax, effective October 1, 1974.

A total of 308,222 calls were processed for the year or an average of 25,685 calls per month. This amounts to an increase of 11,264 calls for the year or 939 calls per month.

EXCHANGE MEMBERSHIP:	YEAR 1973	YEAR 1974
Physicians	354	371
Registered Nurses	60	62
Licensed Practical Nurses	16	15

GROVER H. BATTEN, M.D.

WOMAN'S AUXILIARY PRESIDENT

**HOUSE ACTION:** Filed with expression of gratitude to the Auxiliary for their activities and great help during the year and with congratulations to Mrs. Betty Liljestrand who was elected president of the AMA Auxiliary.

This year Hawaii was inspired by the Fall Conference of the AMA Auxiliary in Chicago. The need for better communication between leaders and members as well as between the state and our four county auxiliaries was recognized. Our workshop, therefore, stressed better and inspiring communication through various methods. An auxiliary can only be as effective as the enthusiasm, dedication, and knowledge that it can convey to its members. We tried to achieve this by asking our committee chairmen, who attended the AMA Auxiliary regional workshop (1) to pass on the programs and ideas received at the workshop, and (2) to each use a different technique of communication in presenting her report. It was obvious that various mechanical and audio-visual aids could greatly enhance a speaker. A film, tape cassette, slides, posters, and original lyrics and music were all used with the reports. In addition, a guest speaker from a local TV station gave us pointers on how to make an interesting speech.

AMA-ERF has remained an active and vital part of our auxiliary. Early in the year an art auction was sponsored with most of the details taken care of by the Graphic Art Galleries. Hawaii later introduced the idea to the AMA Auxiliary as a very easy and effective fund raiser. The AMA-ERF Christmas cards and various AMA-ERF items were sold throughout the year. The committee is also compiling a cookbook of favorite recipes of our members. This project should be completed within the coming year. The Honolulu County annual Christmas luncheon-boutique was a lovely affair and financial success. Glamorous auxiliary models dazzled the guests with a mod jewelry show. Maui County held their first gals AMA-ERF benefit with a luncheon-fashion show in November. Beautiful holiday fashions were featured by Liberty House. Maui found, much to its delight, that they are a large enough auxiliary to sponsor a community-wide benefit.

*Bylaws* were revised this year in order to broaden the scope of the auxiliary. Our greatest progress was made in the membership category. We are now able to include hus-

bands of physicians. We have also made provisions for spouses of physicians who, though eligible, choose not to belong to the HMA, and provisions for widows(ers) of physicians from other states. In this day and age the auxiliary must keep up with the progressive, broad-minded attitude of our members and must be attractive to those who might consider joining us in the future. Other changes were made to provide for more flexibility within our organization.

*Health Careers* purchased the Allied Medical Education Directory and the Financial Information National Directory from the AMA. The directories were presented as gifts to all the public and private high schools in the state, the University of Hawaii and some of the colleges, as well as some miscellaneous institutions.

*Health Education and Health Services* coordinated their efforts since they are so closely related. They continued to be a very important and challenging part of the auxiliary. Our best public relations program was the annual Guest Day seminar. Every September the Honolulu County Auxiliary presents a medically oriented educational program. Community leaders from various organizations are our guests, and the topic of the seminar determines the organizations that are to be invited. The ones selected are those which will best profit from the program and may even be able to utilize it. This year the topic was "The Women in the Mirror." It dealt with the physical and psychological needs of human beings and how our exterior and interior reflect each other.

A program development committee zeroed in on specific needs in health education and service on Oahu. Honolulu County decided that a course would be offered in six sessions in the model cities areas. The series consists of (1) personal care—charm, (2) nutrition, (3) infant care, (4) pre-natal and peri-natal care, (5) how to have fun with your child—play, communicate, (6) how to set up your own baby-sitting coop, day care. This is an excellent role for an auxiliary because it is serving the need of a particular community, using talent within the area, taking the program to them, with the auxiliary serving as the innovator and coordinator.

The special education centers for the mentally handicapped remain the major interest of Hawaii County. Volunteers work throughout the year in any way that they are needed. Maui County participated in "The Baby's First Year" project. They helped compile an information kit for new mothers to be presented to them in the hospital at the time of birth. This well received project was done in cooperation with the University of Hawaii Extension Service. Kauai County selected the indigent and senior citizens in the rural areas as their project. They assisted in nutritional programs for the elderly. They supply one hot meal a day, have parties, provide gifts, etc. Kauai is making life much happier for a group that is too often forgotten, and soon may not need our help.

Other programs that were offered or organized this year were Gems, Safety on the Streets, Mouth to Mouth Resuscitation, and Blood Donor. We have also participated in programs with other health related organizations such as the Cancer Society, Heart Association, March of Dimes and hospital auxiliaries, either as auxiliaries or individuals.

*In Memoriam* was sorry to report that there were 6 deceased auxiliary members this past year. The committee completed 13 new biographies and revised 12 biographies of deceased physicians.

*International Health* provided medicine and equipment to the needy in Southeast Asia. Two hospitals in Vietnam were the recipients. Maui County not only collected medicine for the State to help these hospitals, but they have continued to sponsor a child in Hong Kong.

*Legislation* has slowly begun to make an impact. The membership did react to legislative needs when alerted by the Legs Line. Continuous legislative education is awakening a naive membership.

*Membership* was encouraged by several counties by friendly social functions held especially for new members. We are trying to attract new members into participation by

first meeting them at an informal, enjoyable function. Also the completion of the new addressograph plates was accomplished this year. This will enable us to now use the HMA addressograph.

*WA-SAMA* had an active year emphasizing newcomer adjustments and independent activities. The Auxiliary invited all prospective WA-SAMA members to a potluck dinner in September. It was held at the lovely home of one of our members. It was well attended by the resident, intern, and student wives. They were most appreciative of the aloha extended to them by our members and the delicious food that was served. As the year progressed, they expressed interest in getting politically involved specifically in the future of the University of Hawaii Medical School. They also decided to start a scholarship fund for medical students.

*The Historian* took over the back-breaking job of overseeing the moving of the auxiliary office to our new quarters. The files were reviewed, cleared out, and reorganized. All bulk material was checked and either stored for future use or discarded. This was a task long past due and was finally completed.

*RX For Doctor's Wives*, our newsletter, was published four times this year. It kept us abreast with national, state, and county activities. The newsletter was an inspiring, interesting, and enjoyable way to inform and unite all of our members.

The Ad Hoc Planning Committee for the AMA Auxiliary President-Elect, Mrs. P. Howard Liljestrand was organized this year. The responsibility of this committee was to assist our own member Mrs. Liljestrand, prior to and during these very important and exciting years. We asked her how we could assist her and what our responsibilities would be as her sponsoring state. We were most anxious to relieve her wherever and whenever we could. It is a privilege for this committee to assist our next AMA Auxiliary President, and it is being done with enthusiasm and dedication.

Our new project was started at the request of the Honolulu County Medical Society. Our Hawaii State Medical Library gave a cry for help. Volunteers were recruited to staff the library, in the hope of giving better service to the community, and providing longer hours. The library is used by the general public as well as the medical community. This is one of the few requests that our medical society has ever made, and we were delighted to comply.

We will celebrate our silver anniversary, our 25th Convention, on May 21, 1975. It will be our final event of the year. Our guest of honor and keynote speaker will be our esteemed member and national representative, Mrs. P. Howard Liljestrand (Betty), the President-Elect of the AMA Auxiliary. Our program will honor her in true Hawaiian tradition with a beautiful tribute in music and dance.

As we reach this milestone, we should take a moment to look backward and reminisce. We have come a long way from a small, geographically-isolated auxiliary, to one that is active and involved. Our progress and contributions over the past 25 years have been made possible only because of all of the wonderful people who have preceded us. It is because of each and everyone of our members, both past and present, that has made us worthy of being an Auxiliary.

We would like to express our heartfelt thanks to the HMA for its encouragement, support, and confidence. I, for one, am extremely proud to be a counterpart of the medical profession and the HMA. It has been a privilege serving through the Auxiliary in my own small way.

MAHALO and ALOHA!

MRS. UNOJI (FLORENCE) GOTO

## PUBLIC RELATIONS COUNSEL

**HOUSE ACTION:** Adopted with the recommendation that an ad hoc committee be formed to study the feasibility of hiring a staff person whose primary responsibility would be promoting good public relations for the HMA.

Called upon, from time to time, to assist in the preparation or delivery to the working news media of news releases



...ing the official positions of the Association, was the extent of activity performed by your Public Relations Counsel. No recommendations are proposed other than the restating of Counsel's position that good public relations for the medical profession begins in each physician's office.

PAUL J. STEWARD

## RESOLUTION NO. 1—Coverage for Complete Maternity Care in all Health Insurance Policies

### HOUSE ACTION: Adopted as follows

*WHEREAS*, it is recognized that the nation's most valuable resource is its children, and

*WHEREAS*, all insurers do not include maternity care coverage in every health insurance policy issued, and

*WHEREAS*, many insurers do not provide *complete* maternity care when maternity benefits are provided, now therefore be it

*RESOLVED*, that HMA encourage all insurance carriers to provide coverage for complete maternity care in health insurance policies issued to an individual, group, or hospital service corporation.

Complete maternity care includes (1) treatment associated with voluntary control of reproduction, (2) normal obstetrical care, (3) all complications of obstetrics, (4) prenatal care, (5) care of the unborn infant, (6) labor, delivery and puerperium, and (7) newborn care from moment of birth through the first year of life.

Complete maternity care shall be included in all policies, whether single or family coverage. Deductibles and co-insurance may be allowed if the usual, customary and reasonable (UCR) charges for maternity services are reimbursed to the same per cent, or proportion, as is the maximum authorized for reimbursement of the UCR charges for other surgical procedures. In addition, total maternity care coverage shall be given in all policies regardless of the marital status of the insured.

In order to provide continuity of coverage, the following eligibility period shall be written into all insurance policies concerning benefits for obstetric care-pregnancy which begins while the insurance is in force shall be covered until the termination of the pregnancy, the puerperium and until the discharge of the newborn from hospital care to home.

—Submitted by GEORGE GOTO, M.D.

For the Hawaii Section, American College of Obstetricians and Gynecologists

## RESOLUTION NO. 2—Fee Schedules

**HOUSE ACTION:** The House concurred with the author of the resolution that it be withdrawn.

## RESOLUTION NO. 5—Acupuncture

**HOUSE ACTION:** Not adopted. A substitution resolution calling for the transfer of acupuncture from the Surgery Section of the Relative Value Studies to the Physical Medicine Section was defeated by a single vote.

*WHEREAS*, in a recent communication to the Hawaii Medical Association the Fee Advisory Committee of the Hawaii Surgical Association requested the following:

"In a recent action by the Fee Survey Committee of the Hawaii Medical Association the still controversial procedure of acupuncture was assigned a code designation (\*20560) in the HMA Relative Value Study. By placing acupuncture in the sub-section pertaining to "Introduction or Removal" of the section on the Musculoskeletal System, the committee's action does, in effect, categorize acupuncture as a surgical procedure.

"As you know, the AMA has taken a neutral position regarding the place of acupuncture in western medicine pending the outcome of numerous investigations and controlled clinical studies. As an empirical pain-relieving

modality acupuncture may someday be defined as a method of physical therapy and, accordingly, may merit RVS classification in the section on Physical Medicine. Acupuncture anesthesia likewise requires controlled scientific evaluation, but obviously would not be considered a form of surgery.

"May we of the Fee Advisory Committee of the Hawaii Surgical Association take this opportunity to recommend deletion of acupuncture from the Relative Value Study of the HMA, in particular from the section on Surgery . . .", now therefore be it

*RESOLVED*, That acupuncture be deleted from the HMA Relative Value Study for the reasons stated in the letter above.

Submitted by  
EDWARD L. BOONE, M.D., Chairman  
Fee Advisory Committee  
Hawaii Surgical Association

## RESOLUTION NO. 14—Regarding National Health Insurance

**HOUSE ACTION:** Referred to the county medical societies for study and report to the 1975 Delegates meeting.

*WHEREAS* the United States Congress is quite likely to enact into law some form of national health insurance within a year or two, be it

*RESOLVED* that the HMA take a stand and affirm the following:

- 1) It supports the concept of pluralism in systems of health care delivery;
- 2) It believes that government should cooperate with organized medicine and with the many other groups involved in and interested in the delivery of health care, to expand the quality and quantity of available health care services for all Americans;
- 3) That adequate insurance should be available to protect the patient from devastating financial aspects of disabling illness and injury;
- 4) That benefits must be broad and inclusive of all illnesses both mental and physical;
- 5) That the federal government assist insurance carriers to underwrite health evaluation and health maintenance and associated diagnostic procedures and testing in the interests of prevention of illness;
- 6) That it must cover the services of physicians and of physician-extenders who must be under the active supervision of a licensed physician;
- 7) That it must cover services rendered in a physician's office, in the patient's home, and in the hospital and nursing homes and extended care facilities;
- 8) That to promote economy, the emphasis must be on reimbursement for care outside the hospital;
- 9) That payment must be for benefits received on the basis of equal fees for equal services;
- 10) That payment must be to the patient as the responsible party, with provision for voluntary assignment by him or his guardian, and voluntary acceptance of assignment of benefits on the part of the physician;
- 11) That administration be at the regional level under the guidance of a non-political board of citizens a majority of whom must be practice-oriented physicians;
- 12) That quality assurance must be implemented at the local level by medical peer review with consumer input;
- 13) That there be provision for financial support of continuing medical education of physicians for the betterment of patient care;
- 14) That there be provision for financial support of education of the lay public as regards self-care and elementary medical knowledge.

J.I. FREDERICK REPPUN, M.D.

## RESOLUTION NO. 15—Payments By DSSH

### HOUSE ACTION: Not adopted.

*WHEREAS* many physicians find it impossible, due to high overhead to accept DSSH clients, or do so at considerable personal sacrifice because DSSH pays only part of the usual, customary and reasonable fee and does not permit the physician to charge the patient the balance, be it

*RESOLVED* that the HMA work closely with DSSH in the interest of reaching a joint proposal to present to the 8th State Legislature, and be it further

*RESOLVED* that the HMA encourage the Physicians' Action Group to continue to meet with the Legislative Coalition (representing the clients) to further common goals and make presentation to the State government so that DSSH clients will be on an equal status with private patients of these same physicians.

J.I. FREDERICK REPPUN, M.D.

## REFERENCE COMMITTEE ON PEER REVIEW AND FINANCE

### RESOLUTION NO. 7—HAWAII MEDICAL JOURNAL

#### HOUSE ACTION: Adopted.

*WHEREAS*, the present financial difficulties of the HAWAII MEDICAL JOURNAL are being resolved by the increase in advertising rates and the increase in advertising received such that the September issue will be a break even issue for the first time; and

*WHEREAS*, the criticism that the JOURNAL has become just another throwaway-journal may have some validity in this age of specialty journals; now therefore be it

*RESOLVED*, that the JOURNAL be primarily a communications publication for our local medical community with the scientific material dealing with local medical problems, and with the format to include *non-scientific* coverage (HMA Newsletter, abstracts of county society minutes and news, news by presidents of the voluntary health agencies and specialty societies, PSRO News, bulletins from hospitals and health care insurers, continuing medical education calendars, Peer Review committee abstracts and advisory bulletins, etc.) and *scientific* coverage (scientific articles of local interest, abstracts of specialty journal articles written by local physicians and a section on new developments in medicine); and be it further

*RESOLVED*, that the House of Delegates of the HMA accept the HAWAII MEDICAL JOURNAL as a subsidized internal communications publication for 1975.

Submitted by WILLIAM F. MOORE, JR., M.D.

## COMMISSION ON MEDICAL EDUCATION AND PEER REVIEW

### HOUSE ACTION: Adopted as follows

In view of the dedication and the efforts of the committee chairmen on this Commission, your Commissioner decided that their individual reports mandated publication in their entirety. Most of the committee reports are self-explanatory.

#### Medical Education

The Medical Education Committee of the Hawaii Medical Association addressed itself to meeting the educational needs for the profession in continuing competence. After a thorough evaluation of existing and varied approaches to quality assurance, the Committee recommended the adoption of a system of documentation of Continuing Medical Education (CME) activities.

The Physician's Recognition Award (PRA), an ongoing activity of the American Medical Association, was identified as the vehicle for CME documentation. The Committee recommended that every physician in Hawaii, whether or not an HMA member, voluntarily meet the requirements for and obtain the Physician's Recognition Award.

In order to increase the availability of accredited locally produced CME programs eligible for the American Medical Association, "Category I" credit, the HMA through the Medical Education Committee developed procedures which were approved by the Council on Medical Education of the American Medical Association for accreditation of organizations or institutions sponsoring Continuing Medical Education programs in Hawaii. Local physicians who have already served as approved representatives of the AMA Council on Medical Education were identified, and these, as well as potential surveyors and Directors of Medical Education, were organized so as to serve as future accreditors for these intrastate functions.

Following general notification of all appropriate institutions and organizations and the heavy response to invitations for survey by institutions, a calendar was devised and the first three accreditation surveys, involving the HMA annual Scientific Session, the Thoracic Society "Fireside Chat" evening session, and certain CME programs of the Children's Hospital are being planned. These will be conducted by national and local survey team members in October-November, 1974. The mechanism, forms and teams have been established. It is recommended that surveys be conducted not more than four times a year.

The committee recommends that the House of Delegates affirm its recognition of the following actions:

1. The Hawaii Medical Association encouraged documentation of Continuing Medical Education by all physicians as a means of demonstrating quality assurance by, and continuing competence of the physicians in Hawaii.
2. The Hawaii Medical Association adopted the American Medical Association's Physician's Recognition Award as the vehicle for this documentation.
3. The Hawaii Medical Association recommended that all physicians in the State of Hawaii voluntarily obtain the AMA Physician's Recognition Award.
4. The Hawaii Medical Association became officially qualified by the Council on Medical Education of the American Medical Association to accredit "Category I" programs of organizations or institutions sponsoring intrastate Continuing Medical Education programs.

#### Recommendation

1. An Office of Continuing Medical Education be established as an office of the Hawaii Medical Association.
2. HMA continue to survey local hospitals and institutions for accreditation of "Category I" CME activities.
3. A calendar of accredited "Category I" CME activities in Hawaii be developed and means of circulation be explored.
4. A budget of at least \$7,000.00 be allocated to support the CME activities of the Association.

H.H. CHUN, M.D.

Your Commissioner commends the Medical Education Committee in its entirety for initiating the quest for credible continuing medical education of HMA members. We therefore recommend:

1. That the House of Delegates officially endorse the concept of utilizing the Physician's Recognition Award, or its recognized equivalent, as a vehicle for continuing medical education.
2. That the HMA establish an office of Continuing Medical Education whose functions it will be to survey hospitals and institutions for accreditation of Category I CME activities.
3. That the Office of Continuing Medical Education develop a calendar of accredited CME activities which can be circulated to the HMA membership and other interested parties.





# The Dual Definition of Total Disability

by  
MUTUAL BENEFIT LIFE



# Here's Mutual Benefit's New Dual Definition of Total Disability due to injury or illness

1

**EITHER** you are unable to engage in your former occupation.

2

**OR** your monthly earned income has been reduced to one-fourth or less of your average monthly earned income for the twelve month period before total disability begins.

## THE MUTUAL BENEFIT DUAL DEFINITION ...

recognizes that professionals and executives, when disabled, have special needs not common to people in most other occupations. *Under the first part of this definition* you are considered totally disabled during the entire benefit period if you are unable, through sickness or injury, to engage in your own occupation, even if you could engage in another occupation. This definition recognizes and protects the considerable investment of time and money you have made in becoming highly skilled at your special line of work.

*The second part of The Dual Definition* considers professionals and executives to be totally disabled even if they continue to perform limited activities in their own occupation while they are disabled. Under this definition (if disabled through sickness or injury) you can collect full disability benefits for as long as your limited activities produce no more

than 25% of your previous income. This recognizes that professionals and executives generally have a drive to keep working even though they are disabled from carrying on full-time activities.

Under most conventional coverages neither of these special needs is recognized. Protection in one's own occupation, when provided, is often for a period less than the full benefit period. And coverage while performing limited activities, if available as a "partial disability" benefit, usually pays only one-half the full benefit and for only six months or less.

Under Mutual Benefit's Dual Definition, you will be considered totally disabled in *either* of the circumstances described in 1 or 2 above and will receive full benefits for the full benefit period. These more liberal benefits are available only for certain occupations.



# Significant Features of the Professional Income Policy (H173)

## Noncancelable and Guaranteed Continuable to Age 65

Only the timely payment of premiums is necessary to keep the policy in force until you become age 65. Thereafter, if you remain employed, the coverage is conditionally continuable to age 70 with maximum benefit periods of 24 months for accident and sickness.

The premiums to age 65 are guaranteed.

While your policy remains in force and regardless of your future health or the number of disabilities which may occur, no restrictive riders or endorsements may be placed on it after it is issued.

## Dual Definition of Disability

Mutual Benefit's Professional Income Policy pays benefits when you are totally disabled by sickness or injury:

1. If you are unable to engage in your former occupation  
or
2. If your disability reduces your income to 25% or less of what it was before disability (even if you *can* engage in your former occupation).

## Presumptive Total Disability

You will be considered to be totally disabled if you have sustained the total and irrecoverable loss of speech or hearing or use of two limbs, or while you are deprived of your sight, even if you can still engage in your former occupation.

## Waiver of Premium

For as long as you are disabled you don't have to pay premiums but the Company keeps the policy in force—starting with the day your benefits begin.

## Recurrent Disability

If you recover, then become totally disabled again from a different cause, or from the same cause if you were able to engage in your former occupation for at least six months, your disability is considered a new disability.

If not, it is considered a continuation of the previous disability and the payments under the original benefit period, if any remain, are resumed immediately, without a new elimination period.

## Dividends . . .

may serve to reduce your costs at a future date. The policy is participating and dividends must not be considered a guarantee, promise or estimate as to the future. The 1974 dividend scale provides for a dividend equal to 10% of the ultimate premium beginning at the end of the third policy year. This is equal to the increase in the guaranteed premium.

## Military Service

Coverage terminates during military service. However, if you are discharged within 5 years from the time you enter military service, you have a guaranteed right to resume your coverage at the same premiums, within ninety days following discharge. Injuries sustained after the date of reinstatement and sickness manifested 10 days or more after the reinstatement date will be covered.

## "First Manifest" Clause

The policy does not cover any condition which is evident before the policy issue date. It does, however, cover a latent condition existing before the issue date but whose first symptoms appear after the policy is in force.

## 10-day Free Look

If not fully satisfied, you can return your policy within 10 days for a full refund of any premiums paid.

## Coverage Is Worldwide

There are no geographical limitations.

## Pregnancy

Pregnancy and incidental complications are exceptions to coverage.

This is an outline of coverage providing periodic benefit payments to help replace income when you are unable to work as a result of sickness or injury. ***It is not a contract.*** There are variations in Military Service and Pregnancy features in several states. Full details of your coverage are contained in policy form H173, as approved in your state.



# NOW!

We are offering a full line of noncancelable and guaranteed continuable— to age 65—individual disability income contracts . . .

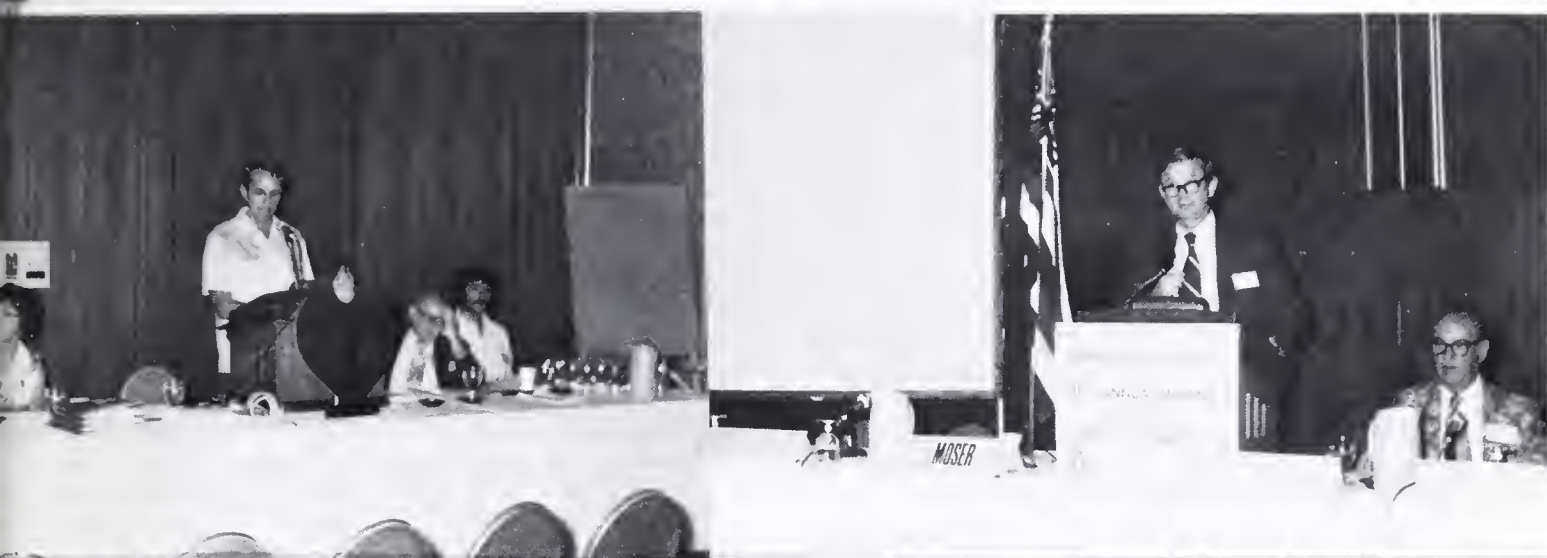
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A name to remember.





- That the Medical Education Committee evaluate the voluntary CME program during the coming year and report to the 1975 House of Delegates their recommendations for continuation of the voluntary program or the need for a mandatory program.

## Publications

Since July, 1973, the Publications Committee has had three meetings.

The first meeting was called as an emergency one on October 9, 1973, while the chairman was out of the state for a few weeks. The JOURNAL was beginning to have financial difficulties. Mr. Paul Steward thought these could be lessened or solved by publishing the JOURNAL on a monthly basis in 1974, which was approved by the 1973 House of Delegates.

The second meeting was held on April 19, 1974. The financial troubles were worse, if anything, and it was proposed to hire an additional advertising salesman. Mr. George Mansfield, with a guaranteed stipend to try and sell more advertising. It was noted, however, that more than 50% of the JOURNAL pages were already covered with advertising, and Mr. Thorson noted that anything more than a slight increase would invalidate our second class mailing permit. Dr. McDowell noted that the cost per page of printing and mailing was practically as much as we were receiving (net) per page from advertisers, so that increasing the amount of advertising on this basis would do little or nothing to solve the financial problems. It was decided to have Mr. Thorson compile accurate figures on this. It was also voted to investigate the financial effects of publishing quarterly with the present amount of advertising, or with no advertising at all if there was little or no net revenue from it.

The third meeting was held on July 26, 1974 in conjunction with the Finance Committee and was chaired by Dr. Grover Batten, chairman of the Finance Committee. It was noted that the JOURNAL deficit had increased in 1974 during the period of monthly publication. The chairman of the Publications Committee noted that there are certain fixed expenses for every issue and he would have objected strongly to doubling the frequency of publication if he had been at the October 1973 meeting. He noted also, however, that the costs of paper, printing, and postage had skyrocketed during the past 18 months, so that many journals were having financial problems. Mr. Thorson produced figures to show that the moneys being received over the bare printing costs for advertising were now only \$6 per page from national advertisers and \$14 per page from local advertisers. These did not take into account the mailing costs and the overhead production costs per page which would bring the net figure down, probably, to little more than a break-even figure for advertising.

It was the feeling of the Publications Committee that the frequency of publication should be reduced to 4 times per year as soon as possible, to reduce the total expenses incurred by the fixed costs (printing covers, binding, mailing costs, press start-up costs, etc.) per issue. It should be sold at a rate that it would net (after expenses) not less than \$50 per page printed even if that results in a reduction of the number of advertising pages printed. The Publications Committee felt that the JOURNAL could be published 4 times per year, with such advertising as could be obtained at this rate, with a cost to HMA of no more than \$8 per member per year. It is recommended the continuation of the JOURNAL on this basis. The official report of this meeting will appear in the report of the Finance Committee.

FRANK McDOWELL, M.D.

The Publications Committee has tried to resolve the fiscal dilemma of the HAWAII MEDICAL JOURNAL. It would appear that two decisions need to be made: (1) the decision as to whether the HAWAII MEDICAL JOURNAL continue to be published or not, and (2) that if the HAWAII MEDICAL

JOURNAL is to be published, the number of issues of its publication.

The House of Delegates should be reassured that the members of the Publications Committee and Finance Committee have given serious thought to the above considerations and have decided that the decisions regarding the JOURNAL would best be made by the House of Delegates.

Your Commissioner recommends:

- That the House of Delegates reaffirm their desire to continue publication of its own medical journal.
- That the HAWAII MEDICAL JOURNAL continue to be issued monthly, unless otherwise recommended by the Finance Committee or the Publications Committee and approved by the Council or the Executive Committee and that its budget be considered as part of the necessary operation of the HAWAII MEDICAL JOURNAL.
- It is further recommended that the Publications Committee and the Finance Committee meet jointly at least quarterly to assess the current fiscal status of the JOURNAL and that a report be made to the HMA Council on a quarterly basis for the next fiscal year.

## Maternal & Perinatal Mortality Study

Since the Maternal and Child Health Section of the State Department of Health has been unable to provide secretarial help to this Committee for several years in the governmental economy drive, the record keeping and administrative functions of the Committee were assumed by the Association in July 1973. As in the past, however, the State Department of Health has continued to work closely with this Committee by providing statistical information on maternal and perinatal deaths and assisting in the study of these deaths through the Chief of the Maternal and Child Health Section, Dr. Louise S. Childs, and the Chief of the Office of Research and Statistics, Dr. Thomas A. Burch.

The major activities of the Committee are as follows:

- The Committee studied in detail nine maternal deaths and classified the deaths as follows: Three cases were directly obstetrical deaths and were practically preventable; one case was a directly obstetrical death and possibly preventable; three cases were directly obstetrical deaths and not preventable; and two deaths were not related to obstetrics and not preventable medically.
- The subcommittee on perinatal deaths (named the "Steering Committee") met at monthly intervals which were in addition to the regular monthly meeting of the Committee as a whole. This subcommittee selected perinatal deaths on the following basis:
  - Information extracted from birth and death certificates,
  - Upon requests for study of particular deaths by members of the medical profession,
  - For other pertinent reasons.
 Of the cases selected 24 cases were considered noncontroversial and not preventable or preventability could not be determined because of lack of information and the studies were terminated in the subcommittee. Fourteen cases were referred to the Committee as a whole and they were classified as follows: Four cases were obstetrically related deaths and practically preventable; one case was a pediatrically related death and practically preventable; two cases were combined obstetric-pediatrically related deaths and practically preventable; one case was an obstetrically related death and possibly preventable; two cases were pediatrically related deaths and possibly preventable; two cases were combined obstetric-pediatrically related deaths and possibly preventable; one case was an obstetrically related death and not preventable; and one case was a pediatrically related death and not preventable.
- The Committee is gratified to see many members of the Association from neighbor islands attend either the meetings of the Steering Committee which usually meets

at 12:30 p.m. on the second Wednesday of each month and the Committee as a whole which usually meets at 7:30 p.m. on the first Monday of each month. The Committee is also pleased to have the continued participation of members of the medical profession in the Armed Forces of the United States in the deliberations of the Committee.

4. This Committee in cooperation with the Legislative Committee and the School of Medicine prepared and had introduced in the State Legislature a resolution for a study to establish a statewide medical examiner's system (coroner's system) within the department of pathology in the School of Medicine. This resolution passed both houses of the Legislature and the provisions of the resolution is now being carried out.

GEORGE GOTO, M.D.

## Peer Review

There was no occasion for the Peer Review Committee to meet during the year.

CHEW MUNG LUM, M.D.

## Professional Liability

The Professional Liability Insurance Committee has continued to function in helping to obtain professional liability insurance for medical association members who have difficulty in obtaining professional liability insurance.

The Committee has met on several occasions in executive session and with the physicians involved to discuss their specific problems.

The Committee working with Mr. Thorson has negotiated a reduction in professional liability insurance premiums for the forthcoming year with the Argonaut Insurance Company. This premium reduction is unique in the United States, where professional liability insurance premiums have in general continued a rapid upward trend.

The Committee, by helping to resolve specific professional liability insurance problems, hopes to be able to maintain insurance coverage for the members of the association at a reasonable price.

ALAN PAVEL, M.D.

The Maternal and Perinatal Mortality Study Committee, Peer Review Committee and Professional Liability Committee are all commended. It was gratifying to note that there was no need for the Peer Review Committee to meet. It is recommended that Dr. George Goto and Dr. Alan Pavel be commended for their credible performance and that this House of Delegates commend the physicians of the HMA for making it possible to have a premium reduction in their professional liability premium which is very unique in this United States.

WINFRED Y. LEE, M.D.

## HAWAII MEDICAL JOURNAL

### HOUSE ACTION: Filed.

Can we afford to continue to have a state medical journal? The educational, administrative, prestige, and PR advantages are considerable, but so is the cost. It is dealt with in the reports of the Publications and Finance Committees; I will discuss the product here.

In 1974, in accordance with the instructions of the House of Delegates, we went monthly. Since the last annual meeting, we have published in an average month 3.1 articles, 1.8 editorials, 1.7 book reviews (none in the last five issues), 25.2 pages of advertisements, 19.0 pages of text, for a total of 44.3 pages per issue. Since going monthly these figures have dropped to 2.7 articles, 2 editorials, 3.7 book reviews (none in the last 5 months), 20.7 pages of advertisements, 18 pages of text, for a total of 39 pages per issue.

Robert Moser's column, "Ruminations," had to be discontinued because of his appointment as Director of Publication for the A.M.A. The special pages of the Heart Association and the Hawaii Academy of Family Practice were discontinued. A 32-page section in July-August, 1973 was devoted to the Proceedings of the House of Delegates, as usual. Henry Yokoyama's Notes and News section, undoubtedly the most regularly read portion of the magazine, has been continued.

Dotis Jasinski has continued to perform effectively as Assistant Editor, assuming responsibility for virtually all manuscript editing. Paul Steward has functioned effectively as executive editor in charge of production. Book reviews, in charge of Winfred Lee, have fallen off sharply and it is hoped some resuscitation may be possible in this area.

Advertising revenues have failed to support our costs because the rates have been unrealistically low in relation to our expenses, and every effort is being made to increase these, even if it means losing some advertisers. We think the JOURNAL, now in its 33rd year, is worth supporting through these bad times, and concur in the recommendation of the Publications Committee that you authorize the publishing of 4 quarterly issues in 1975 before considering the radical and backward step of abandoning it altogether.

HARRY L. ARNOLD, JR., M.D.

## FINANCE COMMITTEE AND TREASURER

**HOUSE ACTION:** Adopted with approval of a \$300 increase in the budget of the Public Affairs Committee which will allow the committee to give two awards for medical journalism and an increase in membership dues of \$10/member to partially reflect the increase in the cost of living. It was further recommended that the Finance Committee recommend to the next House of Delegates a formula for increasing reserves and/or to start a building fund.

The Finance Committee met frequently throughout the year and has presented financial reports at each meeting of the HMA Council and the Executive Committee. The budget proposed for 1975 was submitted for Council approval on October 4, 1975 and is submitted for the consideration and adoption of the House of Delegates. Also included is a statement of income and expenses for the year 1973, the experience of the first eight months in 1974, and a breakdown of various projects proposed for 1975.

### 1975 BUDGET

**Committee expenses:** The Fee Survey Committee anticipates \$1,000 income from the sale of the RVS. The Legislative Committee recommends the Legislative Counsel position be budgeted at \$7,500.00 compared to \$6,500.00 last year. The Finance Committee recommends this amount in recognition of the inflationary trend and recommends its inclusion in the budget realizing, at the same time, that the legislative climate may be such that a Legislative Counsel need not be retained. Without the inclusion of this item, however, it would be impossible to retain a Counsel. There are slight changes in the budgets for Public Affairs and Inter-professional Relations Committees which reduces the total committee budget to \$8,750.00 for 1975 over \$9,360.00 in 1974.

**Roster:** It is recommended that a Roster be published in 1975. We anticipate a deficit, if any, would not exceed \$500 for 1975. The recovery of this deficit is anticipated in future sales of the Roster in 1976.

**Continuing Medical Education:** (this is a new item in the budget) This proposed budget item should receive top priority due to its intimate relationship with the AMA's Physician's Recognition Award program. Anticipated income is \$1,600. It may not be necessary to spend \$7,000. However, it is felt that inclusion of the secretarial item at \$3,600, travel and consultant expenses at \$3,000.00 and the \$100.00 for the publication of calendars is essential. It should be added that the travel and consultant item of \$3,000 was included in



this category and has been separated from the usual travel item in the expense budget in order to indicate HMA's firm commitment to the project.

**HAWAII MEDICAL JOURNAL:** Pursuant to the action of the House of Delegates in 1973, the HAWAII MEDICAL JOURNAL has been published on a monthly basis since January 1974. At COB August 31, 1974, the HAWAII MEDICAL JOURNAL showed an operating deficit of \$4,488.96. In addition, there is \$4,101.00 outstanding in the accounts receivable of which \$830.00 are uncollectible. The total deficit for the year to date is \$8,589.96. Because of the alarming deficit, meetings were held to determine whether the JOURNAL should be discontinued immediately (with the July 1974 issue). Through some publication economies, we felt the deficit could be reduced approximately \$5,000 for the rest of the year. Since in the 1974 budget there were expense categories which would not be fully expended, it was felt that these economies could help offset some of the JOURNAL's losses. Accordingly, it was decided that the JOURNAL will continue for the balance of 1974 but with a new publisher.

In the budget schedule for 1975, JOURNAL income is proposed to be \$46,500.00 and expenses of \$46,892.00 leading to a deficit of \$392. It must be remembered that the JOURNAL budget is highly speculative and in all probability overly optimistic. The unpredictable element in the budget relates to advertising income, both national and local. Under the trend so far this year, it would appear that national JOURNAL advertising of \$15,700.00 will probably be realized in 1974 and accordingly is not an unrealistic amount for 1975. Local JOURNAL advertising, however, at \$22,800.00 may be approximately \$5,000.00 above that which will be realized in 1975. This figure was arrived at by taking anticipated earnings for 1974 and increasing them one-third the increased advertising rate for 1975. In my opinion, the budget as submitted may be overly optimistic by approximately \$5,000.

It will be up to the House of Delegates to determine the future of the JOURNAL. It is my opinion that the JOURNAL cannot be expected to show a profit or to break even at the present time and cannot survive without a considerable subsidy on the part of the HMA and its members.

One method of increasing income to offset the deficit would be through an enormous increase in the subscription price (\$30.00). This, of course, would increase the dues structure significantly and would probably meet with a considerable amount of resistance at this time. (In addition, there are not enough subscriptions paid for by non-members to significantly alter the picture of a rate increase.) The only other method of meeting expenses is to subsidize the JOURNAL from general revenues of the Association. In my opinion, this is the choice of the two. The Association must make two determinations: (1) Does it wish to subsidize the JOURNAL and if so (2) in what amount.

In the past, the editor of the HAWAII MEDICAL JOURNAL and the Publications Committee have concerned themselves with the quality of the publication and have not been involved in considerations relating to advertising and financing. Since all JOURNAL activities are intertwined, it is the strong feeling of the Treasurer and Finance Committee that the editor and the Publications Committee should be actively engaged in the management of all phases of the JOURNAL operation.

**Physician's Benevolent Fund:** By the authority granted, the funds of the Physician's Benevolent Fund were placed in a management investment account with the First Hawaiian Bank effective November 1, 1973. The initial deposit in the account was \$39,000. Through the purchase of 30-day Commercial Paper, the fund realized interest of \$3,242.36 in the first 10 months ( $\pm$  10% annual rate). At such time as there is further economic stability, and commercial paper becomes less attractive, the funds will be transferred to other investments.

Because of the favorable experience with the Physician's Benevolent Fund, the *operating reserves* that were pre-

viously held in savings and loan accounts were placed in another management account at First Hawaiian Bank. It is separately accounted for and thus far the interest rates have been most favorable and far superior than those realized from the savings and loan companies.

In presenting the financial picture to the House of Delegates at its last annual meeting and again in October 1973, the treasurer and Finance Committee had indicated that the need for a very significant increase in dues had come about because there had not been annual increases to match the inflationary trend over the past several years. We are well aware that the trend in 1974 has been upward again. However, we are reluctant to recommend a dues increase at this time due to the levying of the assessment in 1973 and increasing the dues by \$65.00 per member in 1974. However, we do feel that it will probably be wise to increase the dues for 1976.

*Recommendations (As Approved)*

1. That the House of Delegates approve the 1975 budget to include an additional \$300 in the budget of the Public Affairs Committee (News Media Award).
2. That the dues for 1975 will be \$215/member to partially reflect the increase in the cost of living.
3. That the Common Fund cost sharing be 60% HMA-40% HCMS for 1975.
4. That the editor of the HAWAII MEDICAL JOURNAL and the Publications Committee be charged with the responsibility of supervising all aspects of the JOURNAL's management.

GROVER H. BATTEN, M.D.

**SCHEDULE OF COMMITTEE EXPENSES  
BUDGET FOR 1975**

	PROPOSED BUDGET	
	1975	for 1974
<b>FEE SURVEY:</b>		
Sale of RVS .....	(1,000.00)	—0—
Spot Survey .....	600.00	600.00
Printing .....	200.00	200.00
Miscellaneous .....		
Total .....	(200.00)	800.00
<b>LEGISLATIVE:</b>		
Legal Counsel .....	7,500.00	6,500.00
Today's Health .....	150.00	150.00
Miscellaneous .....	100.00	100.00
Total .....	7,750.00	6,750.00
<b>PUBLIC AFFAIRS:</b>		
News Media Award .....	800.00	760.00
Science Fair .....	200.00	200.00
Physician's Questionnaire .....	300.00	—0—
Total .....	1,300.00	960.00
<b>INTERPROFESSIONAL RELATIONS:</b>		
Professional Liability .....		500.00
Public Affairs .....		250.00
Association of Professions .....		100.00
Membership in Hawaii .....	200.00	
Total .....	200.00	850.00
<b>TOTAL COMMITTEE EXPENSES .....</b>		
	8,750.00	9,360.00

*HAWAII MEDICAL ASSOCIATION  
BUDGET for 1975 AS APPROVED BY THE HOUSE OF DELEGATES*

	Budget for 1975	Budget for 1974
<i>INCOME</i>		
Membership Dues .....	178,400.00	164,000.00
Journal .....	46,500.00	58,000.00
Annual Meeting .....	25,000.00	25,000.00
Annual Roster .....	6,600.00	—0—
Interest Earned .....	2,000.00	1,200.00
Miscellaneous .....	500.00	2,500.00
Common Fund Revenues .....	5,000.00	3,000.00
Health Careers Council .....	—0—	1,200.00
Dues Collection Services .....	2,000.00	1,100.00
Continuing Medical Education .....	1,600.00	—0—
Total Income .....	<u>267,600.00</u>	<u>256,000.00</u>
<i>EXPENSES</i>		
Auditing .....	5,000.00	4,500.00
Council Expenses .....	4,000.00	5,000.00
Donation .....	100.00	100.00
Dues & Subscription .....	500.00	800.00
HAMPAC .....	500.00	200.00
Library Contribution .....	100.00	100.00
Insurance .....	600.00	600.00
Meeting Expenses .....	5,000.00	5,200.00
Miscellaneous .....	500.00	300.00
Postage .....	3,500.00	3,000.00
President's Assistant .....	12,000.00	12,000.00
President's Contingency Fund .....	1,000.00	1,000.00
Repairs & Maintenance .....	200.00	—0—
Stationery, Printing & Supplies .....	500.00	1,500.00
Special Authorized Expenses .....	—0—	500.00
Taxes—Payroll .....	1,000.00	1,500.00
Telephone & Telegram .....	3,000.00	4,800.00
Travel .....	5,000.00	5,000.00
Women Auxiliary .....	7,000.00	6,500.00
Committee Expenses .....	9,050.00	9,360.00
Journal Expenses .....	46,892.00	59,001.00
Annual Meeting Expenses .....	21,000.00	23,000.00
Roster Expenses .....	7,100.00	—0—
Furniture & Fixtures—Depreciation .....	1,000.00	1,000.00
Health Careers Council .....	—0—	1,200.00
Continuing Medical Education .....	7,000.00	—0—
Total Expenses .....	<u>141,542.00</u>	<u>146,161.00</u>
<i>COMMON FUND EXPENSES</i>		
Salaries .....	94,000.00	86,160.00
Auto Allowance .....	2,000.00	1,800.00
Computer Reports .....	300.00	300.00
Dues and Subscription .....	400.00	240.00
Insurance & Bond .....	4,000.00	2,400.00
Lease Rent on Office Equipment .....	3,000.00	1,800.00
Legal & Professional .....	3,000.00	2,400.00
Meeting Expenses .....	200.00	—0—
Office Supplies .....	8,000.00	4,800.00
Postage .....	200.00	—0—
Rent .....	10,000.00	9,000.00
Repairs & Maintenance .....	1,000.00	540.00
Retirement Contribution & Exp. ....	15,000.00	12,000.00
Telephone & Telegram .....	250.00	300.00
Taxes—Payroll .....	7,000.00	4,800.00
Travel .....	3,000.00	900.00
Miscellaneous .....	200.00	
Total Common Fund .....	<u>151,550.00</u>	<u>127,440.00</u>
Total Expenses .....	<u>293,092.00</u>	<u>273,601.00</u>
Direct Operating Deficit .....	<u>25,492.00</u>	<u>(17,601.00)</u>
Direct Reimbursement PSRO (Common Fund)		
Salaries (60% of 31,500.00) .....	18,900.00	
*Other (60% of 21,300.00) .....	<u>12,780.00</u>	
Surplus .....	<u>6,188.00</u>	
<i>*Includes Rent, Fringes, Telephone &amp; Telegram, Supplies, Payroll Taxes &amp; Miscellaneous</i>		



# STATEMENT OF INCOME AND EXPENSES

	Month Ending August 31, 1974	Current Year to Date (8/31/74)	Total for 1973	Budget for 1974
<i>INCOME</i>				
Membership Dues .....	1,076.25	167,147.63	112,290.00	164,000.00
Special Assessment .....	—0—	243.00	21,037.21	—0—
Journal .....	2,435.94	26,773.29	26,988.72	58,000.00
Annual Meeting .....	—0—	—0—	21,713.53	25,000.00
Annual Roster .....	30.00	1,270.00	4,760.00	—0—
Indirect Cost Reimb. (EMS) .....	—0—	18,370.05	33,128.82	—0—
Indirect Cost Reimb. (EMCRO) .....	—0—	1,119.83	26,396.53	—0—
Indirect Cost Reimb. (Tumor) .....	2,512.80	10,104.48	8,773.11	—0—
Interest Earned .....	—0—	605.62	807.50	1,200.00
Miscellaneous .....	—0—	333.95	1,469.67	2,500.00
Common Fund Revenues .....	403.12	3,438.03	2,764.51	3,000.00
Health Careers Council .....	—0—	—0—	—0—	1,200.00
Dues Collection Services .....	—0—	1,712.29	846.10	1,100.00
Pacific PSRO (Services) .....	1,063.60	1,063.60	—0—	—
Indirect Cost Reimb. (HIFMC) .....	—0—	740.85	—0—	—
Total Income .....	7,521.71	232,922.62	260,975.70	256,000.00
<i>EXPENSES</i>				
Auditing .....	—0—	—0—	4,160.00	4,500.00
Council Expenses .....	113.50	1,264.31	3,696.54	5,000.00
Donation .....	—	—	—0—	100.00
Dues & Subscription .....	19.90	212.13	527.61	800.00
HAMPAC .....	—0—	—0—	200.00	200.00
Library Contribution .....	—0—	100.00	100.00	100.00
Insurance .....	—0—	(11.11)	580.35	600.00
Legal Counsel .....	—	—	—0—	—0—
Meeting Expenses .....	240.57	2,673.22	4,341.93	5,200.00
Miscellaneous .....	—0—	367.88	258.23	300.00
Postage .....	287.03	1,585.12	2,924.35	3,000.00
President's Assistant .....	1,000.00	7,000.00	11,000.00	12,000.00
President's Contingency Fund .....	45.00	257.20	257.91	1,000.00
Repairs & Maintenance .....	24.08	27.60	474.17	—0—
Stationery, Printing & Supplies .....	—0—	(26.39)	1,286.73	1,500.00
Special Authorized Expenses .....	—0—	—0—	—0—	500.00
Taxes—Payroll .....	33.54	723.97	1,309.72	1,500.00
Telephone & Telegram .....	95.86	1,399.22	4,065.27	4,800.00
Travel .....	1,105.80	5,687.79	5,750.70	5,000.00
Women Auxiliary .....	56.00	6,436.00	6,470.00	6,500.00
Committee Expenses .....	(300.00)	(649.24)	19,537.50	9,360.00
Journal Expenses .....	3,904.10	31,262.25	35,638.18	59,001.00
Annual Meeting Expenses .....	—0—	73.87	19,259.56	23,000.00
Roster Expenses .....	—0—	24.37	7,298.39	—0—
Furniture & Fixtures—Depreciation .....	—0—	—0—	867.21	1,000.00
Health Careers Council .....	—0—	—0—	10.00	1,200.00
Contract Fee to RCUH .....	—0—	—0—	20,574.75	—
Total Expenses—General .....	6,625.38	58,408.19	150,589.10	146,161.00
<i>COMMON FUND EXPENSES</i>				
Salaries .....	5,800.39	52,902.99	73,692.38	86,160.00
Auto Allowance .....	214.36	1,366.16	2,103.13	1,800.00
Computer Reports .....	26.23	207.98	265.80	300.00
Dues & Subscription .....	—0—	42.00	109.00	240.00
Insurance & Bond .....	233.99	2,302.33	2,503.96	2,400.00
Lease Rent on Office Equipment .....	216.01	1,690.59	1,888.92	1,800.00
Legal & Professional .....	156.00	1,248.00	2,464.80	2,400.00
Meeting Expenses .....	—0—	58.71	54.04	—
Office Supplies .....	974.20	5,743.13	4,265.58	4,800.00
Postage .....	—0—	134.61	—0—	—
Rent .....	756.09	6,048.72	9,073.06	9,000.00
Repairs & Maintenance .....	11.23	383.86	719.02	540.00
Retirement Contribution & Exp. .....	6,078.00	9,656.36	6,810.36	12,000.00
Telephone & Telegram .....	98.13	179.51	302.42	300.00
Taxes (FICE, U/C, FUTA) .....	988.73	4,523.84	4,594.14	4,800.00
Travel .....	—0—	—0—	755.64	900.00
Unclassified .....	—0—	104.86	—0—	—
Depreciation .....	—	—	228.38	—
Total Common Fund .....	15,553.36	86,593.65	109,830.63	127,440.00
Total Expenses .....	22,178.74	145,001.84	260,419.73	273,601.00
NET INCREASE (DECREASE) IN FUND .....	(14,657.03)	87,920.78	556.97	(17,601.00)

CONTINUING MEDICAL EDUCATION  
SCHEDULE OF INCOME AND EXPENSES  
BUDGET FOR 1975

<b>INCOME</b>	
Subsidies from Hospitals .....	1,600.00
Total Income .....	1,600.00
<b>EXPENSES</b>	
Secretary (Part Time) .....	3,600.00
Travel and Consultant .....	3,000.00
Publication of Calendars .....	100.00
Miscellaneous .....	—0—
Total Expenses .....	7,000.00
INCREASE OR (DECREASE) .....	(5,400.00)

ANNUAL ROSTER  
SCHEDULE OF INCOME AND EXPENSES  
BUDGET FOR 1975

<b>INCOME</b>	
Advertising .....	6,000.00
Sales of Roster .....	600.00
Total Income .....	6,600.00
<b>EXPENSES</b>	
Assistant Editor .....	600.00
Commission .....	1,000.00
Copyrights .....	
Discounts .....	500.00
Printing .....	5,000.00
Postage .....	
Stationery & Supplies .....	
Total Expenses .....	7,100.00
INCREASE OR (DECREASE) IN FUND .....	(500.00)

HAWAII MEDICAL JOURNAL  
SCHEDULE OF INCOME AND EXPENSES  
BUDGET FOR 1975

	BUDGET FOR 1975	BUDGET FOR 1974
<b>INCOME</b>		
Journal Advertising (Local) (Increased Rates) .....	22,800.00	24,000.00
Journal Advertising (National) .....	15,700.00	26,000.00
Journal Sales & Subscriptions .....	8,000.00	8,000.00
Total Income .....	46,500.00	58,000.00
<b>EXPENSES</b>		
Assistant Editor .....	7,200.00	8,500.00
Copyrights .....	72.00	36.00
Commission Paid .....	6,000.00	3,000.00
Discounts Allowed .....	4,000.00	5,000.00
Miscellaneous .....	—0—	25.00
Postage .....	300.00	400.00
Printing (Mo. @ 2,435.00) .....	29,220.00	42,000.00
Stationery & Supplies .....	—0—	40.00
Insurance .....	100.00	—0—
Total Expenses .....	46,892.00	59,001.00
NET DECREASE FOR THE PERIOD .....	(392.00)	(1,001.00)

SITE

HOUSE ACTION: Filed

The HMA Honolulu County Medical Society Site Committee has met on a number of occasions in the past few weeks to consider several possible locations for a new home. Of the original three sites considered, only one re-

mains at this time. At the time of this writing, it is premature to say anything other than that the project would be a complicated one considering the fact that there are several land owners, that aerial rights will be needed for one portion of the development, and there is question as to what the HMA participation will ultimately be. We hasten to add, however, that the picture is a relatively bright one and much more concrete information should be available in the immediate future.

GROVER H. BATTEN, M.D.

COMMUNITY RESEARCH BUREAU

HOUSE ACTION: Filed

The Bureau continues to operate only as a fiscal agent for funds designated for charitable, scientific, literary, or education purposes. It does appear that the Community Research Bureau is meeting the purpose for which it was formed. The Bureau is not in need of any funding from the Hawaii Medical Association.

B. ALLEN RICHARDSON, M.D.

EMCRO

HOUSE ACTION: Adopted

The National Center for Health Services Research and Development contracted with Arthur D. Little Company, Inc., a national consulting firm, to perform an external evaluation of all eight EMCRO projects funded across the nation. Because of this external evaluation, the Hawaii Medical Association was awarded an additional six-month grant to assist A.D. Little representatives conduct the evaluation on the Hawaii EMCRO. Jon R. Won was named the Acting Principal Investigator for this evaluation project. An ad hoc committee of three was appointed by the HMA president to conduct an HMA evaluation of the Hawaii EMCRO project, for possible use by the A.D. Little investigators. Approximately six meetings were held in which physicians involved with the Hawaii EMCRO through the various local hospitals were invited to provide their input into the HMA evaluation. The final report of the HMA evaluation of the Hawaii EMCRO provided herein.

I wish to thank the other committee members, Drs. William Iaconetti and Fred Reppun, and those physicians from the local hospitals for their time, effort, and assistance in this endeavor.

Recommendation:

That the HMA House of Delegates adopt this HMA evaluation of the Hawaii EMCRO Project.

WINFRED Y. LEE, M.D.

THE HAWAII EMCRO REPORT

The Hawaii Medical Association initiated the Hawaii EMCRO (Experimental Medical Care Review Organization) as an extension of a previous commitment to assess quality medical care in hospitals and in ambulatory care settings. This two year project (6-71-6-73) was funded by the National Center for Health Services Research and Development with the final report being written by the EMCRO staff in June, 1973. A final external evaluation is being performed by Arthur D. Little, Inc., under a federal grant and will be completed by June, 1975 as part of a federal effort to evaluate all EMCRO projects.

The following is the HMA evaluation of the Hawaii EMCRO. After a comprehensive review of the final report of the project and discussions relative to the impact of the project, HMA believes that the Hawaii EMCRO resulted in these conclusions:

1. ASSESSMENT OF QUALITY MEDICAL CARE

The definition and development of a measurement of quality medical care delivered to a patient has been the



goal of HMA. This project was an attempt to make this measurement.

The Hawaii EMCRO project answers this quest by arbitrarily defining quality medical care as the percent of achievement of those processes of medical care which criterion panels had proposed for optimum patient management. Once these criteria of processes of medical care were established, hospitals were asked to determine their performance goals. Unfortunately, these performance goals which were stated as a percent achievement of these criteria could not always be readily agreed upon by hospital panels and at times were established by "guess work". The medical record was abstracted by non-physician abstractors and then submitted to data-processing. Feedback to the physicians was utilized as a prime method of enhancing learning and hopefully to change physician performance. Within the definition chosen by this project and by the methodology used in this project, it could be concluded that "quality medical care" was assessed.

However, the elusive measurable definition of quality medical care remains unresolved since, in HMA's opinion, the documentation of the process of medical care is only one of many measurements of quality medical care. It is of interest that even the project directors themselves have recently proposed a study to include outcome criteria measurements which were originally believed by HMA to be important in measuring quality medical care following the conclusion of the HMA Payne study. The problem of documentation of the medical care delivered and actually performed by a physician is still unresolved but it appears that the documentation of performance was improved. The ability to abstract a medical record was at times difficult and might have posed a problem even for physician abstractors. In spite of the problems in assessment of quality medical care by the Hawaii EMCRO, the HMA feels that a great step forward has been taken towards further research and implementation along these lines.

## 2. ACHIEVEMENT OF STATED OBJECTIVES

The original objectives of the project were:

- I. To provide consultation and technical staff assistance for improved hospital-based medical care review.
- II. To develop the procedures and data processing methodology for local review of the quality of ambulatory care in a variety of settings.
- III. To develop continuing education programs based on needs identified by review of objective performance data from ambulatory and hospital-based patient care.

Later, two additional objectives were added:

- IV. To develop the methodology for local review of the quality of extended medical and nursing care and to conduct a pilot study in selected extended care facilities.
- V. To develop the methodology for local review of the quality of nursing care in acute care facilities.

It may be generally stated that the objectives were accomplished in varying degrees.

### *Objective I*

This objective was achieved but the requests for this consultation and technical assistance were utilized in varying degrees by the hospitals. Although the data indicates that 100% of the hospitals considered this consultation as valuable, only 20% felt such consultation should continue. It should be noted that the changes that occurred in some of the hospitals were not a direct result of EMCRO input, but were due to other factors such as the fiscal factor of "retroactive denials", concern regarding the impending PSRO, and individual commitments at the hospital level to improve peer review. Nevertheless, the existence of EMCRO probably had a catalytic effect on these changes. Unfortunately, the initiative for utilization of these consultative resources was not promoted by the EMCRO staff but was left up to the individual hospitals.

### *Objective II*

This objective was achieved but, unfortunately, the problems in the mechanics of data processing were not completely surmounted till late in the project. The data processing utilized shows some promise if retrospective studies are needed.

### *Objective III*

This objective was also achieved but, unfortunately, organized feedback seminars with EMCRO staff input did not always produce the expected beneficial results. The theory of changing the behavior of a physician with improved performance did not appear to be achieved since no statistically significant change in overall performance was noted in the hospital or ambulatory care study. Of great interest and in some sense a great disappointment to accepted educational tenets, an improved performance in the ambulatory care study was achieved by those who selected not to attend organized feedback seminars and supports the fact that learning is personal and involves a good deal of self-motivation.

In the final analysis, the expected educational benefits may not have been obtained since the physicians involved may not have truly believed that the pointing out of deficiencies of the processes of medical care was indeed necessary for better patient care in all instances; and that there were too few cases surveyed and that there was not enough time to be able to assess properly the results of feedback in terms of the improvement in physician performance.

### *Objective IV*

This part of the study was commendable and the objective achieved. However, the results obtained from the methodology utilized indicated that the ECF records were poorly documented and therefore provided an inadequate record for abstraction in most instances. Another problem was the excessively detailed criteria. The study itself does not seem economically feasible particularly when one considers the results except that it did reveal that many patients in the ECF's were there not for medical reasons but for socioeconomic reasons.

### *Objective V*

This study is presently being implemented by the Hawaii Nurses Association.

## 3. NON-PHYSICIAN ABSTRACTORS

It appears that the background and training requirements for these abstractors are still not clearly established. The method of measuring reliability was assessed in this study by non-physician inter-rater agreement. By this standard, they appeared reliable. The use of a non-physician abstractor, preferably an RN, is certainly desirable, but perhaps a better test of reliability would be achieved by a periodic physician check of a non-physician abstractor.

## 4. DATA PROCESSING IN PEER REVIEW

The utilization of a distant data processing system did not appear to be flexible, feasible, or timely in this project. The turn-about time from abstraction to usable data was a definite drawback in efficiently assessing physician performance. The utilization of the local data processing system did not improve turnabout time during the limited time of the study. The problem of concurrent review with data processing still needs to be resolved.

The data produced is not always easily utilized by physicians. It is of great interest that physician acceptance and utilization of a consultant's analysis of the data, as first instituted at Kuakini Hospital and later utilized by EMCRO, was probably the best method of making data useful to a physician.

## 5. ORGANIZATIONAL MISUNDERSTANDINGS

It was rather repeatedly stressed in the final report that organizational differences existed. It would appear that poor or no communication, little or no trust, and little or no

cooperation may be cited as causes of this unfortunate problem.

Regardless, it appears that fortunately these differences did not hinder any achievement of the stated objectives of the project. In the future, the need for communication, trust, and cooperation between and by HMA and project coordinators should be certainly necessary so that objectives of a project can be attacked without emotional involvement.

#### 6. BENEFICIAL EFFECTS ON HMA PHYSICIANS

Involvement in criteria development and reassessment of these criteria by a large number of physicians in this study and the previous HMA Payne Study are educational assets that should distinguish the physicians of this State in performing quality care assessment.

Although good documentation has not always resulted in improved outcomes in some studies previously reported, improved documentation probably did occur in our State as a result of the initial efforts of quality care assessment. The fact remains that documentation of medical care delivered, though not necessarily essential for improved patient care, is the only means by which one can audit a medical record if performance is to be assessed.

This experimental project again stresses to the physicians the difficult, yet possible, attainment of assessing quality medical care. Methods to utilize these measurements for problem identification and resources for continuing physician education need to be reassessed, and certainly this study made a contribution towards solving this problem.

Although the EMCRO methodology involves retrospective review, the criteria developed may be useful for the oncoming PSRO as a screening tool for prospective review.

#### 7. CONCLUDING REMARKS

The HMA feels that non-punitive peer review can be effective but that stronger leadership at all levels is needed towards realizing the benefits of such peer review. This apparently was a weakness of the EMCRO project.

Other weaknesses of the EMCRO project were the lack of participation in the EMCRO project by physicians who were in positions of leadership as well as a lack of informational guidance by the project director.

Nevertheless, HMA commends the EMCRO staff for its efforts in this project and regrets the insidious development of organizational differences. The contributions of this staff have directly and indirectly led to independent leadership in peer review activities which should benefit this State.

The HMA also wishes to express its appreciation to the members of the Executive Board for their efforts and contributions.

The HMA also extends its thanks to the Regional Medical Program, Hawaii for its generous contributions to this project.

Finally, HMA is proud that it did initiate this study and commends the physicians of our state who helped towards meeting the objectives of this study. Physician participation was essential for this study.

### RESOLUTION NO. 4—Payment of Past Dues For Membership

#### HOUSE ACTION: Adopted

*WHEREAS*, the Hawaii Medical Association has always been in conformity with the bylaws of the American Medical Association, and

*WHEREAS*, it is the intent of the American Medical Association and the Hawaii Medical Association to encourage membership in the professional associations, and

*WHEREAS*, at the 1973 Annual Meeting of the American Medical Association the bylaws of the AMA were modified to eliminate the requirement that a physician who has dropped his membership must pay at least one year's past dues for reinstatement, now therefore be it

*RESOLVED* that the Hawaii Medical Association in conformance with the bylaws of the American Medical

Association, modify its policy of assessing prior year's delinquent dues upon application for reinstatement and consider such applications without regard to previous delinquent dues.

THOMAS P. FRISSELL, M.D.

### HAWAII FOUNDATION FOR MEDICAL CARE

#### HOUSE ACTION: Filed

The Board of the Hawaii Foundation for Medical Care has been involved primarily in activities concerning Professional Standards Review (PSRO). The HFMC has also kept abreast of its insurance program both in commercial care coverage and the self-insured program.

*Insurance Program:* The insurance programs of the HFMC have remained static with very little change over the past one and one-half years. Presently, the HFMC still provides Foundation coverage through one commercial carrier with five contracts covering approximately 2,000 subscribers and dependents, and through one self-insured union which covers approximately 300 subscribers and dependents.

*PSRO Activities:* Since the transfer of the Foundation for Medical Care to the Hawaii Medical Association in 1972, the HFMC has been primarily involved in PSRO activities. The Board of the Foundation thoroughly studied the law and the intent of the law. It concluded that they will accept the charge given to the medical profession to administrate this law. Eventually, the HFMC applied for and was awarded a six-month planning grant by the Department of Health, Education and Welfare to establish the Pacific PSRO. Although our contract proposal provided for an independent PSRO organization within the HFMC, such an organizational structure was unacceptable to DHEW which mandated that a new, free-standing corporation be created, which resulted in the formation of the Pacific PSRO, Inc. The HFMC Board of Trustees, the interim board of directors of the Pacific PSRO, subsequently approved this new corporation as the vehicle through which PSRO planning and implementation would be accomplished through the HFMC.

The HFMC created an Advisory Group on PSRO Development with representatives from the HMA, the Department of Health, Hawaii Osteopathic Association, Hospital Association of Hawaii, DSSH, Aetna, and HMSA.

Under our planning contract, the HFMC was to accomplish four tasks:

1. Develop an organizational structure in compliance with HEW guidelines;
2. Recruit physicians as members of the HFMC's PSRO and develop a continuous recruitment plan;
3. Develop a detailed formal plan for the assumption and implementation of a conditional PSRO's duties and functions;
4. Develop a strategy for the acquisition of organizational resources for a conditional PSRO.

The Advisory Group and these tasks have now been transferred to the Pacific PSRO as of August 13, 1974.

WINFRED Y. LEE, M.D.

### RESOLUTION NO. 8—Accreditation of CME Hours

**HOUSE ACTION:** The intent of this resolution, that all physicians voluntarily obtain the AMA's Physician's Recognition Award or its equivalent, was included as an amendment to the report of the Commissioner of Medical Education and Peer Review and it was therefore voted to withdraw Resolution 8.



**RESOLUTION NO. 10—P.S.R.O.**

**HOUSE ACTION:** While the House agreed with many of the principles set forth in this resolution regarding peer review, there was confusion surrounding the combination of subject matter in the resolution and it was therefore not adopted.

*WHEREAS* there is a considerable national ferment as regards the implementation of the law known as the Bennett amendment or Professional Standards Review Organizations with mounting criticism and calls for its repeal, and

*WHEREAS* there is serious concern that PSROs may not add to the effectiveness of peer review and that they may even be detrimental to quality health care; this concern is based on the cost of such a program (which must eventually be borne by the patient), the further intrusion of third parties into the delivery of health care, and especially their invasion of the confidential relationship between patient and doctor, therefore be it

*RESOLVED* that the HMA affirms that:

- 1) An effective peer review mechanism is an essential part of quality health care delivery and that peer review can continue to be improved on the basis of physician-established guidelines;
- 2) There should be one standard of care applicable to all physicians in all specialties; these standards should be in accord with the general tenor of the guidelines of national specialty societies, but should be established by practicing physicians, and based on local needs. Local decisions must prevail. The omission of the performance of any portion of a guideline should not necessarily be interpreted as a breach of good medical practice nor should addition of services not included in a specific guideline be interpreted as inappropriate or unnecessary in the care of a specific patient;
- 3) The goal of peer review should be physician education and consequent improvement of patient care;
- 4) Punitive aspects of peer review may be necessary but should not be stressed except in their eradication;
- 5) Cost containment, while an important consideration, should in no way be allowed to dictate the quality of medical care;
- 6) Guidelines for care should in no way be restrictive with regard to physician qualifications other than criteria of training, experience and demonstrated competence; these qualifications should be established at the local level;
- 7) Guidelines for hospital admission need not be based only on diagnosis; admission for reasons of medical problems, symptoms or physical findings may also be acceptable, and these criteria for care should be equally liberal for ambulatory care;

and be it further

*RESOLVED* that the HMA exert professional leadership in peer review and in improving health care delivery within the State and assist PacPSRO wherever possible, and be it further

*RESOLVED* that the HMA conduct a vigorous and active campaign to inform the people of this state and of the Pacific ocean areas of the potential dangers inherent in the PSRO law as it pertains to confidentiality.

J. I. FREDERICK REPPUN, M.D.

**RESOLUTION NO. 13—National Licensure Of Physicians**

**HOUSE ACTION:** Adopted

*RESOLVED* that the HMA believes that evaluation of competence in the specialty disciplines, including periodic re-certification, should continue to be the purview of the individual specialty boards, and that medical licensure should continue to be a function of the state through its Board of Medical Examiners, and NOT by a national board at the federal level.

J. I. FREDERICK REPPUN, M.D.

**REFERENCE COMMITTEE  
ON PUBLIC HEALTH**

**COMMISSION ON PUBLIC HEALTH**

**HOUSE ACTION:** Adopted as follows

The Commission on Public Health consisted of the following committees in 1973-74: Cancer, Chronic Illness, Communicable Disease, Crippled Children, School Health, Substance Abuse, and Public Safety. The following is a brief report of the Committee's actions and recommendations.

**Cancer**

The Committee continued close liaison with the Cancer Center of Hawaii. It endorsed and approved proposals to the National Cancer Institute relating to integrated rehabilitative cancer services submitted by St. Francis Hospital and Oncology nursing program in community hospitals submitted by Queen's Medical Center. These proposals were later approved and funded.

The Committee conducted a cancer seminar on Nov. 12 and 13, 1973 and endorsed the establishment of the Cancer Coordinator Program of the American Cancer Society at various local hospitals.

The Committee continued to explore the purchase of a blood cell separator for use in the State. Further meetings will be held with interested hospitals, the Cancer Center of Hawaii and the Blood Bank of Hawaii.

**Chronic Illness**

The Committee actively pursued the program of screening for hypertension as recommended by the House of Delegates in 1973. Many meetings were held and various guests invited to give reports of their activities in the area of hypertension screening. A proposal was finally submitted to the National Heart and Lung Institute, NIH, for a grant for screening. Unfortunately, this was not approved.

The Committee endorsed National Hypertension month in May. A proclamation was made by the Governor's office in support of the declaration.

The Committee discussed legislative change in a tax law in regards to the wording of a "person totally disabled" as qualification for income and property tax exemption. Testimony was prepared and presented at the hearing during legislative session. A change in the law was made effective January 1, 1975.

The Committee was also concerned about the current situation in Hawaii in the care of chronically psychiatric ill patients. Problems related to appropriate placements, proper utilization of facilities and economic considerations were of major concern.

**Communicable Disease**

The major activities of this Committee were reflected in the following:

1. Favored doing away with compulsory smallpox vaccination in Hawaii and placed the regulation for requirement of smallpox vaccination of special occupational groups under the Department of Health.

This was enacted into law.

2. Joined forces with HMA's School Health Committee to put into law mandatory physician examination and updating of immunization and tuberculin testing prior to school entry.

This was enacted into law.

3. Held many discussions on the need for Catch-up Immunization Programs by the Department of Health. In areas where the immunization rate is low, the Committee has encouraged physicians to update all immunizations that are currently recommended before the Catch-up Immunization Program is instituted.

**Crippled Children**

The Crippled Children Committee during this year discussed the programs of the Crippled Children Branch of the

State Department of Health. Major issues have been in the area of cytotoxic food tests and this is still under observation and issues are not resolved. Hopefully, if further research data becomes available this issue may be resolved in the forthcoming meetings. Some of the problems which are not chronically handicapping such as strabismus, hydrocele, etc. were deleted from the program because of lack of funds. Regarding the increase in fees for physicians, the committee voted to refer the matter of payments to the Fee Survey Committee. There are no budget requirements nor recommendations.

#### Public Safety

The Committee held one meeting to discuss 1) mandatory use of seat belts, 2) regulation of compressed air sold to scuba divers, 3) bicycle safety, and 4) avoidance of teaching infants to swim.

#### School Health

The Committee played the instrumental role in passage of Act 51 which makes it mandatory for a child to have a physician examination, a complete series of immunizations and a Tuberculin skin test prior to entrance into a day care center or school for the first time. It was also responsible for extending the School Health Services Pilot Program to 4 more school complexes with the addition of \$175,000 to the existing program.

The Committee is participating in the Master Plan for Special Education of the Department of Education and has also discussed with members of the Hawaii High School Football Association about their concern for safety in football games.

#### Substance Abuse

In accordance with a recommendation in our last annual report, duties of the previously existent Pharmacy Committee were assigned to the Substance Abuse Committee. This Committee thus met with representatives of the Hawaii Pharmaceutical Association and the Department of Health to clarify misunderstandings about the physician's rights and responsibilities in dispensing controlled drugs and to establish methods of dealing with alleged abuses in dispensing. A memorandum to all physicians listing the most commonly dispensed controlled drugs and regulations regarding inventory requirements for these drugs has been proposed for distribution. A survey of physicians dispensing practices was made to help formulate HMA stands on pertinent legislation.

The Committee testified on pertinent areas of substance abuse during the past legislative session.

Two members of the Committee have been appointed to Hawaii's Advisory Commission on Drug Abuse and Controlled Substances.

The Committee has favored third party payment for appropriate medical services for substance abuse per se rather than only for its medical complications.

The Committee has recommended that any treatment of substance abuse by acupuncture be considered experimental and be conducted under appropriate medical supervision.

The Committee has recommended to community programs involved with the treatment of addicts that detoxification and maintenance programs be coordinated under one administrative organization to provide high quality, consistent treatment and rehabilitation without costly competition and duplication of effort.

#### Recommendations:

1. HMA continue to participate actively in the Cancer Center of Hawaii through membership on the Executive Committee and participation in various Center programs.
2. HMA continue its efforts to obtain a blood cell separator for use in the State.
3. HMA continue to attempt to hold a Cancer Seminar annually.
4. HMA continue close liaison with the Cancer Commission, American Cancer Society, Department of Health and Tripler Army Medical Center in the oncology field.

5. HMA encourage that all immunizations and all records of immunizations given be kept current.
6. The House of Delegates consider that a Pharmacy Committee be re-established and mandated to continue to educate our members of changes in regulations governing dispensing of drugs; review and prepare testimony regarding appropriate legislative issues; and maintain liaison with the Hawaii Pharmaceutical Association.
7. That HMA continue to support the School Health Service Pilot Program and its School Health Committee recommendation that it be made into a permanent program.

The Commissioner of Public Health would like to thank Drs. Thomas Lau, Cancer Committee, Charlotte Florine, Chronic Illness Committee, L. F. Chun, Communicable Disease Committee, D.V. Reddy, Crippled Children's Committee, Truett Bennett, Public Safety Committee, Roy Kuboyama, School Health Committee, and Neal Winn, Substance Abuse Committee chairmen for their able leadership and the committee members for their attendance and support.

CALVIN C. J. SIA, M.D.

## CANCER COMMISSION

#### HOUSE ACTION: Filed

The Cancer Commission consisting of:

Grover H. Batten, M.D., Chairman, Hawaii Medical Association

Drake Will, M.D., Hawaii Medical Association

Thomas Burch, M.D., Department of Health

Kleona Rigney, M.D., Department of Health

John Balfour, M.D., American Cancer Society, Hawaii Division

Carl Boyer, M.D., American Cancer Society, Hawaii Division

Eugene Edynack, M.D., University of Hawaii

Ralph Hale, M.D., University of Hawaii

met on 13 occasions since the last House of Delegates meeting. The commission has been extremely busy with the registry since our last annual meeting and your chairman and project director have been particularly involved in the last year. The registry is now a recognized part of the SEER Program (of the National Cancer Institute) and is one of eight units in the United States. Because of the increasing demands on the registry brought about not only through SEER participation but through the creation of the Cancer Center of Hawaii the staff has been significantly enlarged now numbering 10½ persons. In addition, the registry was moved from a small dungeon in the basement of the Health Department Building to a pleasant and adequately sized office in the Bishop Trust Building.

Since the last meeting of the House of Delegates, the registry has provided a great deal of information to many different parties both for individual use as well as for presentation in grant request and scientific preparation. There is no question that with the intensification of the registry activity presently underway, the Hawaii Tumor Registry will assume greater and expanding importance to cancer workers everywhere.

GROVER H. BATTEN, M.D.

## EMERGENCY MEDICAL SERVICES PROGRAM

**HOUSE ACTION: Adopted with the recommendation that HMA offer its services in the area of training and retraining personnel for EMS needs because of experience gained in the training program that has been in operation over the past few years.**

On November 19, 1971, a grant was awarded to City & County of Honolulu by the Highway Safety Coordinator's office. The purpose of the grant was to train ambulance personnel in the State of Hawaii as Emergency Medical Technicians (EMTs). By June 30, 1974 (the expiration date of this grant), 176 ambulance personnel throughout the State com-



pleted the 400 hour course. The course consists of 200 hours of lectures and 200 hours of clinical experience.

The Emergency Medical Services (EMS) Program's EMT-A Instructor, with the assistance of local physicians, administers the National Registry of EMT-A's examination upon satisfactory completion of the EMT course.

The Mobile Intensive Care Technician (MICT) course began in January, 1973. To date, four classes of 10 trainees each have been held. The projection of the MICT training program is to produce a high quality paramedical person to provide supportive and life-saving care to the emergent patient. The course is 17 weeks of classroom experience and thereafter a 4-month internship is required. During the internship, the trainees are supervised by either a nurse or a certified MICT in order to evaluate their proficiency in: endotracheal intubation, IV technique, EKG interpretation, drug administration and overall patient care. In order to allow the MICT to perform their functional role in the EMS system, legislation was passed by the 1973 Hawaii State Legislature. Like the EMT-A course, the MICT course established has been recognized by various State and Federal agencies. They include the Veterans Administrations, State Department of Health, State Departments of Transportation—Highway Safety Coordinator's office, Hawaii Board of Medical Examiners and the Hawaii Medical Association.

In order to expand this small segment into a total EMS system for the State, a grant application was submitted by Hawaii Medical Association to Regional Medical Program Services in Washington D.C. through the Regional Medical Program of Hawaii. The project was funded on September 1, 1972 for a 2-year period ending October 31, 1974. The objectives of this grant are to:

1. Develop a management organization to oversee the implementation and continued operation of the EMS system.
2. Provide training and continuing education for personnel required to operate an effective EMS system.
3. Inventory, categorize and upgrade emergency departments and equipment in hospitals throughout the State of Hawaii.
4. Establish a statewide EMS communication network which will include access, dispatch and consultative services.
5. Purchase ambulances and ambulance equipment which will improve the emergency care capabilities at the scene or enroute to the hospital.
6. Develop a program of public information and education to assist the populace to use and obtain access to the EMS system.
7. Develop a program of data collection, statistical analysis and quality evaluation of the EMS system.

All of the objectives of the Hawaii Medical Association—Regional Medical Program grant will be accomplished in various degrees by October 31, 1974 with the exception of the Neighbor Island bio-medical communication network. It is anticipated that the neighbor island medicom system will be operational by February or March, 1975.

In order to insure continuation of the present EMS system, the City and County of Honolulu submitted a grant application for the Island of Oahu under Public Law 93-154 Title XII, Section 1203 for the operation of an EMS system for the Island of Oahu. In addition, the City & County of Honolulu submitted a training grant under Public Law 93-154 Title VII to continue EMT-A and MICT training. Both grants were funded for a one year period, July 1, 1974-June 30, 1975. A portion of the implementation has been subcontracted to the Hawaii Medical Association—EMS Program.

The objectives of the new EMS system grant are:

#### **Manpower**

- Develop within the City & County of Honolulu a management organization through subcontract to the Hawaii Medical Association, to oversee the implementation and continued operation and planning of the Oahu EMS system.

- Identify, recruit and involve in the Oahu EMS system professional, para-professional and other health care groups as necessary.
- Involve the spectrum of civic, religious and other specific target groups, as necessary, to ensure on-going and continued source of manpower and guidance for the Oahu EMS system.
- Identify and develop an appropriate career ladder structure within the Oahu EMS system.

#### **Training**

- Provide training and re-training for ambulance personnel on a continuing basis.
- Develop and provide on an on-going basis continuing education courses for Emergency Department nurses.
- Develop and provide on an on-going basis continuing education courses for Emergency Department physicians.
- Develop and provide training and re-training for other specific target groups including first responders.

#### **Communication**

- Develop within the City and County of Honolulu a total EMS communications system to include central access dispatch together with communications between all ambulances, hospitals, emergency air and sea rescue vehicles, civil defense areas and State Department of Health for system command and control to include voice and data capability.
- Establish a single emergency access number for the Island of Oahu.

#### **Transportation**

- Identify, develop and establish appropriate air, land and sea transportation for providing initial care which will be capable of responding within 10 minutes.

#### **Facilities**

- Identify, develop and involve, as appropriate, in the Oahu EMS system all emergency facilities to ensure that any critically ill or injured person will be accessible to at least a basic facility within 30 minutes regardless of site.
- Continue to inventory and categorize all acute care medical facilities on Oahu in order to assure continued compliance with national and local standards.
- Identify and assist in developing, as appropriate, other high priority emergency care facilities to include poison control centers, acute alcoholic and psychiatric centers.

#### **Critical Care Units**

- Identify and involve, as appropriate, in the Oahu EMS system all coronary care units, Intensive Care Units, detoxification centers, blood bank and acute mental health facilities.

#### **Public Safety Agencies**

- Work with and involve, as appropriate, all public safety agency personnel in the Oahu EMS system.

#### **Consumer Participation**

- Develop a mechanism to provide improved active consumer involvement in the Oahu EMS system including how to register grievances in regard to system performance.

#### **Accessibility to Care**

- Provide to all residents, military personnel and tourists access to immediate high quality emergency care without prior inquiry into their ability to pay.

#### **Transfer of Patients**

- Develop a mechanism whereby patients who have access to the Oahu EMS system and have a need for subsequent long term or rehabilitative services will be handled as a single continuum of the total health care system. This will include transfer and transportation to the appropriate long term acute or rehabilitation facility.

#### **Standard Medical Record Keeping**

- Develop a standard medical record keeping system for the

Oahu EMS system which will provide improved information with regard to patient care throughout the period of system involvement; and provide such data as may be appropriate to evaluate the system's performance.

#### **Consumer Information and Education**

- Develop and implement a consumer information and education program for the Island of Oahu. The program will include: what is the EMS system, how to access the system, the advantages of accessing the system properly and in a timely fashion, and the disadvantages of system mis-use.

#### **Evaluation**

- Develop and implement, on a continuing basis, an evaluation component directed at assessing both the routine process performance and outcome or community impact of the Oahu EMS system.

#### **Disaster**

- Develop system implementation plans and procedures which are consistent with and synergistic to City and County and State disaster plans.

#### **Mutual Aid**

- Work closely with the State Department of Health and all branches of the military service to ensure that emergency medical service system resources are available to provide mutual aid and specialty services required to meet the EMS system needs of the neighbor island counties.

#### **Legislation**

- Continue to provide the expertise and support to the State Department of Health for the development of appropriate legislation needed to complement an effective EMS system. Following completion of this one year grant, the City and County of Honolulu can again apply for a continuation grant under P.L. 93-154 for an additional one year period. It is anticipated that starting July 1, 1976 the majority of the objectives will have been completed and related health care agencies within the State will be able to pick up and continue the ongoing EMS Program.

HERBERT Y.H. CHINN, M.D.

### **AMA DELEGATE:**

**HOUSE ACTION:** Adopted with expression of gratitude to the Delegate on behalf of his efforts for the Hawaii Medical Association.

In the interim since the last Hawaii Medical Association meeting more thought and energy has been directed by the AMA House of Delegates toward national health insurance than any other single area.

Amendments to the Social Security Act provided for a Professional Standards Review Organization. This part of the amendments precipitated volumes of dialogue, tremendous concern, and for a while divided the House of Delegates. Reaction ranged from complete non-participation by entire state medical associations to the present status of cautious participation and a strong push for amendment to non-acceptable areas. The later action has already been initiated by the AMA.

National health insurance in some form appears to be a reality sometime in 1975 or early 1976. There are over a dozen proposals for national health insurance. The AMA continues to vigorously support Medigap. This concept initiated by AMA embodies a basic plan with catastrophic coverage financed by a system of individualized tax credit based on income.

A very recent article published in AMA News cites a survey done by the Columbia University School of Public Health which indicates that over fifty per cent of physicians studied can support a national health insurance plan.

Health Maintenance Organization legislation which provides for preferential government assistance to certain types of group practice is progressing slower than anticipated. The ground rules for participation tend to discriminate

against solo practice and conventional group practice. Several quasi HMOs associated with health and accident insurers already exist in Hawaii.

The fate of RMP, CHIP, Hill Burton are slowly being determined in Congress under the National Health Policy Bill. Efforts by Congress to institute a public utility concept in these bills to include relicensure, fee setting, etc. have been successfully defeated.

An updated publication on Physicians and Hospital Relations should be reviewed by all physicians especially those associated with hospital governing committees.

The rising cost of medical education and the problems this precipitates for medical students, interns and residents has been discussed frequently by the Delegates. The role that the foreign medical student will play in the future of American medicine is also being studied.

The 1975 AMA Clinical Meeting that will be held in Hawaii in the winter of 1975 is well organized and should be extremely beneficial to all physicians and allied health personnel.

I would like to recommend that the Commission on Legislation keep the membership apprised on the status of the National Health Policy Legislation (HR 16204).

GEORGE H. MUIR, M.D.

### **COMMISSION ON HEALTH SERVICES AND CARE**

#### **HOUSE ACTION:** Filed

The Committee on *Community Health Care* under chairmanship of Dr. John Lowrey, was extremely active with eight meetings during the past year. A major area of involvement was the Waianae Coast Comprehensive Health Center especially in its efforts to become more self-sufficient with continuing support and consultation from the HMA. Efforts also were made to assist Molokai in obtaining physicians and expanding health services. The Committee also remains heavily committed to problems arising in comprehensive health planning.

In the *Health Manpower* Committee chaired by Dr. Robert Nordyke, there was relatively little new activity in this area. Last year the HMA contributed to the development of legislation regarding new medical manpower in Hawaii. As the need for certification is defined the HMA will continue to play a major role in this.

Dr. John Edwards, Chairman of the *Disaster* Committee put its major effort as the Advisory Committee to the State Department of Health. The Committee also advised on the mobilization necessary in the event of a civilian disaster. The response of medical services to simulated civilian disasters by physicians was considered by the Committee—specifically, simulated 747 crash in the Ala Moana Center and Waterfront disasters were reviewed and analyzed. It was recommended that the Hawaii Medical Association coordinate disaster programs requiring physician services throughout the islands. The Committee recommendation that needs further consideration is that physicians be assigned to medical facilities nearest to their usual working areas rather than pre-determined more remote areas.

DR. FRED I. GILBERT, JR., M.D.

### **COUNTY SOCIETY REPORTS**

#### **HOUSE ACTION:** Filed

##### **Hawaii County**

The Hawaii County Medical Society during 1973-74 held their meetings at various parts of the Big Island to stimulate interest in society activities and to accommodate the increasing numbers of physicians in the rural areas. Travel to these outlying areas—such as Punaluu in Kau, Waimea, Waikoloa, and Kona were made by chartered buses—an experience which will probably be continued in the future.

The doctor shortage of just a few years ago has been alleviated with the large influx of physicians in the past two



years (22) both in Hilo and the Kona areas, with the physician force numbering approximately 74 on the island at the present time.

Activities again consisted mostly of the dinner meetings with speakers in the various specialities.

The society hired a part-time secretary during the past year to work two mornings a week at the office located at Hilo Hospital. Also in the past year a speakers' bureau was formed with letter and topics being sent out to schools and various civic organizations. This has generated considerable interest and participation. Several joint meetings were held with members of the clergy with discussion including needs of a chaplaincy program at Hilo Hospital. A committee was appointed for follow-up meetings with members of the Inter-Faith Council. Finally the society, in a recent poll, voted to endorse (by majority vote) the fluoridation bill which will be up for referendum vote in November 1971.

JAMES MATAYOSHI, M.D.

### Honolulu County

Early in the year the administrative and elective officers held an all-day retreat to develop long-range plans for the society. From this session have come programs in peer review, continuing medical education, community service and internal organization.

The Medical Practice Committee, doubled in size, and split into two sub-sections, has been able to function more effectively and expeditiously. Discussions have been held with key legislators and members of the Bar Association relative to legislation which will improve present peer review programs.

The HCMS is working with and in support of the efforts of the HMA CME Committee. With the AMA's approval of HMA as an accrediting body for Category I hours, several local hospitals have applied for accreditation surveys. When approved, these hospital programs will offer HCMS physicians more than enough hours to qualify for the AMA Physician's Recognition Award. The HCMS strongly supports the Physician's Recognition Award as the method of physician certification.

The Physician Referral Service and Diabetes Detection Drive remain popular community services.

The Community Health Committee has been deeply concerned over the Waianae Coast Comprehensive Health Center (WCCHC), an HEW-supported facility in Waianae. With a lay governing board and a shaky past financial administrative history, they have been unable to attract staff physicians or the desired public support. Of particular concern has been the move by certain individuals connected with the health center, to have the State terminate the lease of the Waianae Medical Clinic, a group of private practitioners in the vicinity of the WCCHC.

With HMA, the County Society is involved in a building program to house new and adequate quarters for the two associations. From all available indicators, this will be a sound venture which should yield virtually rent-free quarters in the years ahead.

A system for mail balloting in the election of society officers has been developed and will be ready for implementation in 1975. This will reduce the need for monthly meeting and allow wider involvement of the membership in the election process.

This has been an active year and a productive year for the society.

WILLIAM MOORE, M.D.

### Kauai County

The Kauai County Medical Society officers elected for 1974 were:

President: Dr. Eugene Rames  
Vice-President: Dr. Verne Waite  
Sec-Treasurer: Dr. Maurice Giraudier  
Delegates to HMA: Dr. Peter Claremont  
Dr. Yonemichi Miyashiro

Alternate Delegate to HMA: Dr. Clarence Funaki

HMA Councilor: Dr. Peter Kim

Dr. Verne Waite assumed the role of President in June of 1974 due to Dr. Eugene Rames' resignation and departure to the mainland.

During 1974, the Kauai County Medical Society:

1. Served as a forum in which Kauai physicians are kept informed on the development of PSRO in Hawaii.
2. Lent its approval and support to the development of an asthma project on Kauai. This pilot project is being funded by the State Lung Association.
3. Participated with the Kauai Unit of the American Cancer Society in conducting a Pap smear project in the Kapaa district of Kauai.
4. Participated in an Island wide Diabetes Screening Survey on Kauai.

MAURICE GIRAUDIER, M.D.

### Maui County—1973

During 1973, it was our pleasure to welcome into membership of the Maui County Medical Society Doctors William A. MacDonald, E. Duane Beringer, Robert J. Harrison, Steven R. Strong, William S. Hoskinson and Hugh A. Townsley.

Major activities of the County Medical Society for 1973 included a community action program chaired by Dr. Jose Romero. This program included monthly community medical conferences with the public invited covering a wide variety of community health problems. Also included in Dr. Romero's program was that of monthly radio programs with questions encouraged from the listening public. These programs were very successful and received wide community support. Dr. Romero is to be commended for his excellent activities.

The outstanding efforts of the County Society however were those of the Committee for the Health Care Needs of Maui's Elderly. This was chaired by Dr. William C. James and had as members Dr. Mark Sowers, Dr. Sakae Uehara and Dr. A.Y. Wong. The committee worked diligently for six months and developed recommendations which will prove to have significant impact on the county's health care of its elderly. The committee's recommendations included establishment of home nursing, nutrition programs, transportation and homemaker services as well as consumer education and recreation programs. It was recommended that an elderly day care center should be started and that a geriatric day hospital service should be investigated to enable the elderly to receive different therapies while still living at home. It was also recommended that domiciliary care in care homes and adult family boarding homes should be developed to relieve the pressures on Hale Makua for routine nursing home care. It was the conclusion of the committee that new construction to expand nursing home bed capacity does not appear warranted on Maui in the next decade if the other recommendations are implemented to care for Maui's elderly.

The 1974 officers elected are: Dr. J. Mark B. Sowers, President, Dr. Donald E. Dietrich, Vice President, and Dr. William C. James, Secretary-Treasurer; Dr. William G. Kepler, new Delegate and Dr. John F. Morris, Alternate Delegate.

Socially it was the County Medical Society's pleasure to welcome AMA President-Elect, Dr. Roth in April to a lovely party at the home of Dr. and Mrs. William Iaconetti.

Our Society's activities were concluded at the annual Christmas party at the lovely home and gardens of Dr. and Mrs. K. Izumi.

JOHN N. WITHERS, M.D.

### Maui County—1974

1974 has been an active year for the Maui County Medical Society. Our first meeting in January resulted in an extremely lively and vigorous discussion of PSRO with guest Winfred Lee and Tom Frissell from HMA, which resulted in the passage of the following resolution, which was eventually

adopted as HMA policy by the Council: "Be it resolved, that the HMA go on record as opposing the PSRO law, while continuing through the Foundation to comply with the law until repealed or declared invalid and to develop more refined Peer Review procedures for use when deemed advisable or necessary."

We had monthly meetings throughout the year, except for the month of July, discussing such subjects as Department of Health immunization programs, Kaiser Foundation's federal subsidy grant request, legislation, acupuncture (during two joint meetings with our wives) continuing medical education, revision of DSS pharmaceutical regulations, Molokai physician deficit, and Hale Makua Mahulani addition. In May we also had a joint meeting with Maui pharmacists to discuss mutual problems.

Planned programs for the rest of the year include meetings with DSSH officials in September and October and a meeting with our newly elected legislators in November after the general election, before culminating the year with our annual Christmas party in December.

J. MARK B. SOWERS, M.D.

## LEGAL COUNSEL

### HOUSE ACTION: Filed

This report covers the 17-month period (May, 1973 to September, 1974) during which your legal counsel attended the 1973 meeting of the House of Delegates and several Council meetings, and handled administrative calls, correspondence, and matters for the Association as required by your staff and officers.

The subjects on which we conferred included questions on the Benevolent Fund, your audit, amendments to the Charter and By-Laws, the Drug Abuse program, price and wage freeze questions, questions on record confidentiality, acupuncture legislation, peer review committee immunity, Community Research Bureau functions, changing of interest on overdue accounts and truth in lending applicability, Certificate of Need regulations, general legislation, continued occupancy of Mabel Smyth, The Tumor Registry, a query to the Bureau of Census, reference information reports, and miscellaneous other items including PSRO and EMS activities.

Services are being provided in relation to acquiring new office space.

Your legal counsel has no recommendations.

V. THOMAS RICE

## RESOLUTION NO. 3—Waimano Training School and Hospital

### HOUSE ACTION: Adopted

*WHEREAS*, there has been adverse publicity concerning the care and treatment of residents at Waimano Training School and Hospital; and

*WHEREAS*, budgetary limitation notwithstanding, the medical management team of Waimano Training School and Hospital made great progress to alleviate the situation; and

*WHEREAS*, the Board of Governors of the Honolulu County Medical Society has been made aware of programming changes at Waimano Training School and Hospital, now therefore be it

*RESOLVED*, that the House of Delegates of the Hawaii Medical Association support and advocate the allocation of sufficient funds to develop and implement programs leading to increased quality and quantity of medical and health related services to the retarded citizens of this State, residing both on the grounds of Waimano Training School and Hospital in other facilities, and in the community.

WILLIAM F. MOORE, JR., M.D.

## RESOLUTION NO. 6—Breast Cancer Detection

### HOUSE ACTION: Adopted as follows

*WHEREAS*, the Hawaii Medical Association (HMA) recognizes that cancer of the breast is the major cancer affecting women; that there has been no significant improvement in death rates from cancer of the breast over the past thirty years and that approximately 50% of women who develop breast cancer die of the disease, and

*WHEREAS*, the HMA also realizes that survival rates from breast cancer may be increased by earlier diagnosis and treatment before local or distant metastases have occurred, and

*WHEREAS*, the HMA appreciates the problems that arise in attempting to examine over 100,000 women in Hawaii who are at risk for breast cancer, now therefore be it

*RESOLVED*, that the HMA encourage efforts within the community that results in earlier diagnosis and treatment of breast cancer; that HMA support efforts to educate the public and medical profession regarding the need to appropriately use and evaluate screening and diagnostic techniques including palpation, mammography, thermography, ultrasonics, hormonal assay, ductal cytology, etc., and be it further

*RESOLVED*, that the HMA endorse the establishment of local, as well as national, quality control measures to insure breast examinations of the highest quality possible for women of Hawaii, and be it further

*RESOLVED*, that the HMA recommend that all physicians cooperate in breast cancer detection activities approved by the HMA Cancer Committee and Council and be it further

*RESOLVED*, that the HMA go on record that a breast examination is no substitute for a complete physical examination.

Submitted by THOMAS K.L. LAU, M.D., Chairman,  
HMA Cancer Committee

## RESOLUTION NO. 9—Physician-Extenders

**HOUSE ACTION: In view of the two-year moratorium on licensure/certification of allied health personnel, this resolution was referred to the Health Manpower Committee.**

*WHEREAS* the intent of the Medical Practice Act was and is to assure the public that medical diagnosis and treatment will be the purview of those with the highest determinable standards of professional quality, and

*WHEREAS* deleterious practices will inexorably ensue if Nurse-practitioners, or Physicians' Assistants, or other paramedical personnel are licensed to practice (rather than certified as to competency) and otherwise authorized to practice on their own, be it

*RESOLVED* that the HMA adopt as its firm conviction that these physician-extenders can and should be certified only, *but in no way licensed*, and that they may practice in their respective fields ONLY by or under the supervision of fully trained and licensed physicians, in the State of Hawaii.

J. L. FREDERICK REPPUN, M.D.

## RESOLUTION NO. 11—Extended Care Regulations under SSA

### HOUSE ACTION: Adopted as follows

*WHEREAS* Section 405.1123 of the Social Security Administration regulations would interfere with the physician-patient relationship, and

*WHEREAS* these regulations would require unnecessary visits in skilled nursing facilities & related institutions, and

*WHEREAS* these regulations will add to the cost of government medical care, be it

*RESOLVED*, that the HMA go on record as recommending to the SSA that the determination of frequency of physician



Isits to patients in ECF's be governed by the need of the patient as determined by the physician in consultation with the patient, his family or guardian, and the facility's nursing personnel.

J.I. FREDERICK REPPUN, M.D.

**RESOLUTION NO. 12—Pending Congressional Legislation Potentially Endangering Tumor Registries**

**HOUSE ACTION: Adopted as follows**

*WHEREAS*, Cancer is a major cause of death in Hawaii, the second most frequent cause of death in the United States of America and constitutes a worldwide health problem; and

*WHEREAS*, vigorous efforts to conquer cancer must be employed; and

*WHEREAS*, the Hawaii Tumor Registry is an important tool in this local, national and worldwide fight; and;

*WHEREAS*, the Hawaii Tumor Registry aids in patient care, research anti-cancer program planning and in the activities of the Cancer Center of Hawaii

*WHEREAS*, Hawaii Tumor Registry's activities affect all Hawaii's citizens; and

*WHEREAS*, the Hawaii Tumor Registry participates with the SEER (Surveillance, Epidemiology and End Results) program of the National Cancer Institute; and

*WHEREAS*, the Hawaii Tumor Registry depends upon the availability of confidential information relating to all cancer cases occurring in Hawaii; and

*WHEREAS*, there is legislation pending in the Congress of the United States whereby the use of confidential information would be severely limited in such a way as to endanger the maintenance of effective hospital, central, and national (SEER) Tumor Registries, thus threatening programs in the assault against cancer, now therefore be it

*RESOLVED*, that Hawaii Medical Association go on record as opposing, in principle, any legislation actually or potentially endangering Tumor Registry programs; and be it further

*RESOLVED*, that this Resolution be called to the attention of Hawaii's members of the Congress of the United States.

SUBMITTED BY GROVER BATTEN, M.D.

**HAMPAC**

**HOUSE ACTION: Adopted as follows**

**Activities:** The Hawaii Medical Political Action Committee (HAMPAC) met three times this year. The committee studied and determined which candidates would receive HAMPAC campaign fund support in the 1974 election year. Early in the year, HAMPAC received many requests to support fund raising events of various candidates. It was decided to allocate \$25.00 for each request up to a total of \$300.00 for this purpose. At the meeting of September 12, 1974, it was voted to postpone the selection of those candidates who would receive campaign support until after the primary except for two physician candidates who faced crucial primary battles.

Eighteen of the 21 candidates supported by HAMPAC were successfully elected to office in 1972. We feel medicine has benefited by HAMPAC support and have tried to emphasize this point in our attempts to solicit additional HAMPAC members. We have also emphasized that bipartisan support given members of one legislature by HAMPAC and by physicians and their wives as individuals should be considered as a long-term investment and not a donation. However, I am afraid this has had little effect and it will no doubt require a real jolt such as the introduction of Medicare to wake our colleagues from their doldrums. To date there is a total of 205 active physician members and 10 auxiliary HAMPAC members. This represents 20% of the physicians and approximately 1% of the auxiliary. An appeal letter is being sent to the members of the auxiliary. Hopefully it will bring results.

*Recommendations:*

1. HMA should continue to encourage physicians and their wives to know and understand the nature and actions of their government and the important political issues by encouraging active bipartisan participation in HAMPAC.
2. That the HMA advise the physicians that while doctors may individually work for or donate to individual candidates, it is the united front provided by the HAMPAC that makes a strong impression on the Legislators.

L.Q. PANG, M.D.

**NOMINATING**

**HOUSE ACTION: Adopted**

The Nominating Committee met twice to receive nominations for needed offices of the Association. The following slate of nominees was submitted to be elected by the House of Delegates:

- \*President-Elect .....William W.L. Dang
- \*Secretary .....R. Varian Sloan
- \*Councillor from Kauai .....Peter Kim
- \*Councillors from Honolulu ...John H.C. Kim  
.....Rowlin L. Lichter  
.....Carl H. Lum  
.....Arnold W. Siemsen

All nominees have been contacted and have agreed to serve if elected.

ALBERT C.K. CHUN-HOON, M.D.

\*2-year terms

**ELECTION**

**HOUSE ACTION: The report of the Nominating Committee was presented. There were no nominations from the floor. The nominees were elected unanimously.**

The Nominating Committee was elected as follows: Ann B. Catts, Albert C.K. Chun-Hoon, Andrew Morgan, O.D. Pinkerton, Henry Yokoyama (Honolulu); William E. Iaconetti (Maui); Verne Waite (Kauai); James Matayoshi (Hawaii).

**NEW BUSINESS**

The members of the House gave retiring President Thomas Frissell a standing ovation. The meeting adjourned at 4:30 p.m.

R. VARIAN SLOAN, M.D.  
*Secretary*

**AWARDS  
Medical Journalism**

Pat Hunter—Honolulu Advertiser  
Don Baker—KITV

**Sportsmen's Awards**

*Tennis:*

Benjamin C. K. Tom and Charles C. Ching—Doubles Champions

*Golf:*

President's Trophy—Alvin Paraz  
Robert M. Miyamoto Perpetual Trophy—Alvin Paraz  
John M. Felix Perpetual Trophy—Nobuyuki Nakasone  
George H. Mills Perpetual Trophy for Pharmaceutical Representatives: Les Bricker







Life in These Parts

Over the years, pediatrician John Kometani had helped hundreds of Japanese medical students studying in the U.S., including 65 from Okayama. These Okayama students never forgot their gratitude . . . In August, John journeyed to Okayama to receive the Miki Award (established by the late governor of Okayama), thus becoming the third foreigner to be thus honored . . .

For many years, Kazuo Miyamoto had followed an enlarging aneurysm of his thoracic aorta with his own chest films . . . Recently, he decided that the time was ripe to correct the condition and dropped in to see surgeon Dick Mamiya . . . Surprised, Dick asked who the referring cardiologist was. Kazuo replied, "I'm my own referring cardiologist." And Kazuo had his way, recovered beautifully as any 74-year old should, and has already resumed his vigorous normal schedule of writing, exercise and travel . . .

Dialogue at a September Pac PSRO Board meeting: Wini Lee announced, "Now that the initial shock of the law is subsiding, it is up to us to try to implement it . . ." Wini reported that the first issue of the Pac PSRO Newsletter had been circulated widely in Hawaii, Trust Territories, Guam, Western Samoa and HEW . . . Ann Catts gasped, "You mean Wini's picture has gone everywhere?" (The president's message had a photograph of our illustrious leader smiling a broad Liberace smile) Wini bantered good naturedly, "There'll be a wave of nausea . . ."

Miscellany

Sharon Bintliff, our proponent of cleaner jokes submitted the following: "In reviewing records at Children's Hospital in Seattle, the following was noted on the admission summary for the day:

Name of Patient	Age	Admission Diagnosis
Rusty Sprinkler	4 yrs	Hematuria
Joel Toothacher, Jr.	7 yrs	Dental abscess

Professional Moves

This Year of the Tiger (by the oriental zodiac) has wrought cataclysmic upheavals in our otherwise staid medical community . . . We reach back to April for a few announcements we missed: Pediatrician Joe Young relocated to 1507 So. King, the Kaiser Group added GP Edward Colwell, internist Joan Sakai and cardiologist Richard Reeve, and internist Steven Berman opened at 693 Alexander Young Bldg. . . It started as a flurry in June with internist James Hirasa moving to 98-020 Kam Hwy., Aiea, OB Gyn man Lockwood Young joining Jimmy Wong at 1415 Kalakaua Ave., Bienvenido Manayan leaving Waimanalo and moving to Waipahu, GP Thomas Cahil joining Pearl City Medical Associates, neurosurgeons Bill Won and Calvin Kam relocating to Beretania Medical Dental Plaza. On Kauai, pediatrician Michael Cicero and GP David Elpern affiliated with Kauai Medical Group and Jeffrey Goodman assigned to its Kapaa Clinic. In Kona Jim Mayer O.D. who had been a physician for Hawaii 5-0 opened his office at the Kona Kai Apartments.

The flurry turned into a cataclysm in July as the Kaiser Group added pediatrician Herbert Young Jr. and GP's Carlo

Brizzolara and Kirk Cromar, Straub added eye man Kent Bennett and nephrologist Jared Sugihara (Clarence Sugihara's son), the Central Medical Clinic added internist Tad Iwanuma, the Honolulu Medical Group added pediatrician Robert Wilkinson, the Dickson-Bell Medical Center added internist Nadine Bruce, and the Windward Medical Center added Dale Adams. Straub rheumatologist Melvin Levin moved to 1441 Kapiolani, Alvin Paraz moved to 1200 College Walk, internist Leoncio De Joya moved to the Beretania Medical Dental Plaza and psychiatrist Wallace Chun opened at 4614 Kilauea. On Kauai Katok Chuang relocated to 3105 Akai St., Lihue and on Maui, eye man David David Henderson Brown opened at 1351 Lower Main Street, Wailuku . . .

The fury continued into August . . . Dermatologist Allan Izumi and Robert Clingan formed the Dermatology Associates at the Beretania Medical Dental Plaza, psychiatrist Alan Hawks joined Straub, anesthesiologist Ronald Abrams joined Medical Anesthesia at 1374 Nuuanu Ave., internist Jeffery Sol associated with Fronk Clinic, Kaiser urologist James Dow relocated to the Professional Center Bldg., and D.C. Ostman, J.P. Hennesey, Kathleen Maloney and L. Pasquali joined the Emergency Medical Care, Inc. at St. Francis Hospital . . . Even in September, there was no let up . . . Former Straub anesthesiologist John Roberts was back as an ophthalmologist at the Aina Haina Professional Bldg., internist Charles Aronsohn associated with Noboru Oishi at the Medical Arts Bldg., internist Ronald Perry joined Ted Tomita in Waipahu at 94-801 Farrington Hwy., dermatologist Forrest Carroll Brown and pathologist Robert Flair joined Straub, GP Irwin Koff and internist Adrienne Wing joined Kaiser, eye man David Dulaney joined Gerald Faulkner at 1441 Kapiolani, internist Zita Cruz-Bristol joined the Medical Specialty Clinic at the Professional Center Bldg., Rodrigo Bristol opened at 1405 N. King St., psychiatrist William Cody resumed full time practice at the Professional Center Bldg., and Erlinda Cachola joined the Waianae Medical Clinic Inc. at Kalihi and Robert Marvit relocated to 1110 University Ave. In Hilo internists Jiro Nakano and Thomas Chen joined the Hilo Medical Group . . .

Medicare Review (Whaler's Broiler—September)

We missed all the jokes and humor exuded by the two Fong's, Henry and Bernie because we arrived late and had to sit at the far end of the table . . . But allergist Allan Young leaned across the table and whispered, "My 10-year old son says he has three knees . . . A right knee, a left knee and a 'weenie' . . ." When we thanked ESP disciple, Jerry Faulkner for sending us 2 tickets for the ESP introductory lecture at HIC, we inadvertently blurted how disillusioned we were and how we left at the intermission because the speaker did not explain the how's and why's of ESP . . . Miffy, Jerry demanded militantly, "Can you describe an orgasm?" Jerry informed us that he had acquired 11 new converts and no one had ever complained before . . . We felt like drop outs . . . Surgeon Henry Oyama having reviewed over a dozen surgical claims, felt that he had more than earned his dinner and polished his steak with a certain gusto . . . Plastic surgeon Jim Penoff turned orthopod, proctologist, and ophthalmologist to review his assigned claims and did a credita-



ble job. The difficulties arise with new procedures as yet unlisted in the present RVS such as endoscopic pancreatico-cholecystogram, and colonoscopy...

## Elected, Appointed, Honored

The Makana Foundation named **Percival Chee** to its board of directors. Others on the board are **Phil Whoon Hong**, **Henri Minetti**, **Noboru Oishi**, **Robert Oishi**, **L.Q. Pang**, **Dudley Seto**, **Arnold Siemsen**, and **Livingston Wong**. The Hemophilia Foundation of Hawaii has formed a medical advisory board headed by **Sharon Bindliff** and including **Arthur Osako**, **Julia Frohlich**, **Robert Jim**, **Harold Masunaga**, **Torrey Mitchell**, **Alan Pavel** and **John Sheedy**. The Hawaii chapter of the American Academy of Pediatrics and the Honolulu Pediatrics Society reelected **Cal Sia** for a 3-year term. Also selected for 3-year terms were **Henry Yim**, alternate chapter chairman, **Steve Tenby**, secretary, and **Roy Niimi**, treasurer. **Betty Soo** was elected to the executive committee for 3 years and **Yi Chuan Ching** for 2 years. Named to the State Commission on Population and the Hawaii Future were **Caesar DeJesus** and **William Hindle**. The Hawaii division of the American Cancer Society reelected **Drake Will** president while **Reginald Ho**, **Herbert Uemura** were among 3 vice presidents elected. Its directors-at-large included **Carl Boyer**, **Caesar DeJesus**, **Sakae Uehara**, **George Bracher** and **Peter Kim**. The Windward Health Planning Council elected **Fred Reppun** vice chairman. The Oahu Country Club elected **Harold Johnson** second vice president. **Henry Manayan** was reelected president of the United Filipino Council of Hawaii. **Mark Sowers** of Maui is the newly elected president of the Big Brothers of Maui, Inc. **Leslie Vasconcellos** was newly elected district governor at a Rotary International Convention in Minneapolis. **Ralph Hale** of UH Medical School was appointed to the editorial board of the Western Journal published by the California Medical Association.

## Conference Notes

We listened with fascination as Ph.D. **Rosalyn Yalow** from Bronx VA Hospital gave a learned lecture on "Biochemical and Clinical Considerations of Somatomedin B". We learned that somatomedin are factors that mediated somatic growth hormone and that Somatomedin B was the Thymidine Factor. Rosalyn has done radioimmune assays of Somatomedin B and found that it has a molecular weight of 6,000 that it is bound to protein in plasma, that it has the same species specificity as human growth hormone and that human and primate Somatomedin B is different from Somatomedin B in other animals. The packed audience at the Children's noon conference listened in awe and there were one or two reasonably intelligent questions... but we felt that perhaps **Fred Greenwood** was the only one who dug the lecture. **Bob Katsuki** was busy taking notes and **Gunzo Yamashita** commented wryly, "Now you know it all." And we could hear **Sharon Bindliff** joshing **Mits Tottori**, "Why don't you hire her for your office."

## Acknowledgments...

We never dreamt that it would happen, but it did... The Journal had been a money loser since 1969, because of rising production costs and low advertising rates... A year ago, the Journal went monthly to attract more advertising, but ads were slow in coming because of fiscal budgets... The Finance Committee under the eagle-eyed scrutiny of **Grover Batten** gleaned that the Journal was losing about a \$1000 per issue after 6-months and the Publication Committee had recommended that we go quarterly... But at the caucus of delegates, the Honolulu County Medical Society,

feeling ran high, fanned by our vociferous critic **Al Pavel**, who branded the Journal a financial burden to the Society and "a throw away Journal no one reads..." The delegates voted 9-8 to discontinue the Journal completely... We sat in stunned silence... Out of the corner of our eye we could even see Councilman **George Goto** and other friends vote for discontinuance... We despaired....

Next morning, we dragged into the HMA office where executive editor Paul Stewart was discussing the matter with **Tom Thorson**. The pressing problem was how to save the Journal with less than a week before the House of Delegates met... Editor **Harry Arnold Jr.** was on the mainland, and Assistant Editor **Doris Jasinski** was vacationing on Maui. The situation was dismal... We bemoaned the discontinuance of a Journal with a 33-year history and wondered where we had gone wrong... Tom Thorson suggested that we change the thrust of the Journal and concentrate on the communication rather than the scientific aspect... Paul Stewart noted that our national ads had increased from 10 to 16 in September and local ads from 10 to 14 and that the September issue was the first break even issue based on new advertising rates. **Betty Anderson** walked in and suggested we have a series entitled, "What's New in Medicine." HMA prexy **Tom Frissell** sauntered in and endorsed the concept that the Journal could be more effective as a communications media. Encouraged, we drew up a new format wherein the HMA Newsletter, the Auxiliary News, CME news, County society news, Health Dept. bulletins, hospital news, etc. could be included in the Journal with scientific articles confined to those of local interest (which they really are anyway and do not even try to compete with national and specialty journals). We next cornered **Grover Batten**, our hard nosed treasurer and he agreed to another year's grace period to rectify our financial status. We asked **Betty Anderson** to hold up her push for the Western Journal. And **Wini Lee** was agreeable to continuing the Journal as a monthly rather than as a quarterly if it was to serve primarily as a communication media... And best of all, our critic **Al Pavel** concurred with the change in format and spoke up at the House of Delegates meeting in favor of the Journal. We are truly indebted to all the members of the hastily summoned "Ad Hoc Committee to Save the Journal" including **Ann Catts** (who chaired the Reference Committee), **Hunky Chun**, **Bill Moore** (who drew up the resolution), **Paul Stewart**, **Tom Thorson**, **Doris Jasinski**, et. al. Above all, we are grateful to **Al Pavel** and the other critics who made us aware of the Journal's deficiencies and to **Grover Batten** who eventually may accept the concept of a subsidized Journal... We hope....

## 4th Annual Kuakini Golf Tournament (WCC 10-4-74)

When our golf game goes sour, the only saving grace is that someone else does worse... The weather was perfect with mild trades, the sun warm, but not hot and the course was in perfect shape... Most of us had trouble on the lightning fast greens except for **Eugene Matsuyama** with the flawless, effortless swing whose putts were dropping even with his eyes closed... Eugene shot a 83-14-66 to win the 4th Annual and join the golf immortals viz the 1973 winner **Quint Uy** and the 1971 and 1972 winner **James Tajima**... Quint explained that he had had plenty of rest and his game had been going well until today whereas last year, he was ill and shot well... Such are the perils of this game called golf... **Frank Fukunaga** and **Garth Morimoto** had come up with the novel idea of a dollar jackpot for high net score and we felt confident about winning it, but Garth and we shot net 80's to be outdone by **Herb Takaki's** net 84, only to be topped by Frank's net 87... We figured that Garth who kept duck hooking into every tree on the course and yelling "Garth dammit!" had the best chance, but we

*continued page 488*



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learned that Frank hit 4 trees on the 5th Hole... Our partner **Francis Kaneshiro** had to shoot a net 73 to keep us from losing our bets for opponent **David Sakuda** who hits the ball a country mile was doing fine tee to green, but faltered on the greens, fortunately... **Les Bricker** was 2nd low net with a 67 even after going OB on his first drive... No one had told him about the jackpot... The other scores were more credible... At net 73 were **Paul Muramoto**, **Francis Kaneshiro**, **Y. Fukushima** and **Bill Ito**. At net 74 were **Toots Fujii**, **Ed Izawa** and **Bob Oishi**. **Roy Tanoue** had net 75. At net 76 were **Paul Tamura**, **Francis Oda**, **Bill Morioka**, **James Tajima**, **Hideo Oshiro** and **Quint Uy**. **Dave Sakuda** and **Dick Omura** shot net 77's... But with 34 prizes for 44 participants, everyone went home either happy or drunk after the banquet at King's Garden....

When we mentioned that we had to leave early to watch No. 2 son play varsity football, we learned that nearly everyone on our table had been a varsity athlete... **Eugene Matsuyama** had played varsity basketball and **Bill Morioka** varsity baseball for Punahou while **David Sakuda** had played varsity center and **Francis Oda** varsity quarterback for Iolani... While we are at it, we should mention other football greats... that **Mel Kaneshiro** played for Roosevelt and **Wini Lee** played for Punahou....

## Community News

Fluoridation was the big issue on the Big Island and was to be a referendum vote on the election ballot... **Audrey Merz**, **Dick Adler**, **DeWitt Smith** had worked furiously to promote fluoridation and **Jim Matayoshi**, Hawaii County Society president had announced that the society had voted to endorse the bill by a majority vote in a recent poll... Jim said, "Objections expressed dealt mainly with economics and personal freedom, and not with the purely medical aspects of fluoridation...."

## Oncology Conference...

A 52-year old Portuguese-Hawaiian man had gastrectomy for gastric CA... Pathologist **Grant Stemmerman** announced, "The Portuguese have the highest incidence of gastric CA among caucasians in Hawaii... Probably secondary to economic deprivation... In Portugal, they have the most rapidly rising rate in all of Europe... Hawaiians have an equal incidence of gastric CA as the Japanese in Hawaii..." **Bob Oishi**, the attending surgeon, pointed out that the alkaline phosphatase level was 50. Stemmy: "That's a frequent marker for CA and is associated with increasing monocytes... It's also found in degenerative changes of nerves..." Moderator **Quint Uy** asked what was the next course of therapy since the patient was asymptomatic... Bob: The patient was relatively asymptomatic before surgery, except for mild epigastric distress of 3 months duration and a single episode of bleeding... Upper GI series were negative and the CA was found on gastroscopy... Radiologist **Don Ikeda** was defensive: "I don't have exact figures for false negatives... Despite all the hallaballoo about gastroscopy, upper GI series are still an essential study..." Stemmy felt argumentative: "The quality of upper GI series in this community is such that we should not be doing them except in select cases... I'd rather have a good air contrast study, then the way it is done..." Radiotherapist **Carl Boyer** rose to the defense: "That's a sweeping generalization..." Don: "People talk glibly about gastroscopy, but you must consider the cost and time to the patient... and other factors..." **Hiroshi Ikeda** fanned the argument: "In Japan, air contrast studies are routine... But it does take an hour..." Moderator **Quint Uy** judiciously changed the subject: "What do you plan?" Bob replied,

"Try chemotherapy." Stemmy: "Survival in Japanese is far better with adjuvant therapy than Hawaiians and Caucasians... A 17% survival in Japanese contrasted with a 5% survival in Hawaiians and Caucasians..." Hematologist **Mel Kaneshiro** commented, "I leave it up to the patient... I don't treat, until symptoms develop..."

An 83-year old Japanese man with an asymptomatic high alkaline phosphates was discovered to have metastatic prostatic CA on bone scan... The patient was started on TACE and given radiation to his breasts to minimize the estrogen effects. **Carl Boyer** was philosophical: "Brings up an old adage... You can't make an asymptomatic patient better..." Regarding the prophylactic breast radiation, Carl said, "I don't know how effective it is, but some urologists order it routinely... I would suggest radiation therapy for localized bone pain when the estrogen stops working..." Stemmy commented, "This patient had a bone marrow which showed metastases... If the patient gets sick, it will be from myelophthisic anemia rather than bone pain... The prognosis in orientals with prostatic CA is fairly good..."

A 57-year old Japanese woman had low backache and left flank pain for 4 months and a 20 lb. weight loss. A complete GI series one month earlier had been negative, but a repeat UGI revealed Linnetus Plastica... She had even sought treatment by an MD acupuncturist for the backache. The surgeon thought there was pancreatic extension at time of surgery... **Don Ikeda**: "Echograms were positive for node metastases posteriorly..." Nuclear med man **Dick Warsnick** added, "Bone scans were negative." Moderator **Noboru Oishi** brought the problem back into focus: "The problem is low backache which is not typical of pancreatic CA..." Radiotherapist **Ed Quinlan** opined, "Pain may be due to retroperitoneal extension, but we should rule out epidural tumor... before treating with cobalt. The bone scan certainly should have been positive after 4 months of pain..." Surgeon **Bob Oishi** said, "the therapy right now should be relief of pain. She's been on narcotics too long..." Moderator **Noboru Oishi** suggested, "How about a paravertebral block?" Oncologist **Jack Keenan** disagreed, "How about treating the primary lesion? I would suggest 5 FU first." Quin Uy argued, "You want to treat the major symptoms first... Radiation offers the best prospect. Then cordotomy if it fails." Noboru agreed, "So you would rather relieve the pain, than treat the primary lesion. If drug therapy, how soon can the pain be relieved?" Jack: "In 2 to 3 weeks." Ed Quinlan was dogmatic: "It would be worth trying radiation first... We should know in 2 weeks or less."

## Tom Thorson's Corner

The Queens' interns decided to play poker, but no one had playing cards around so they decided to use patient file cards... **Bill** stood with a hand of 2 appendectomies, **Jack** drew 3 T&A's, but **Jim** had them all beat with his Royal Flush (of 5 enemas).

Tom Thorson says: "An elephant is a mouse built to federal specifications...", "Better (copu)late than never..."

## Conference Notes

Endocrinologist **Werner Shroffner** lecturing on thyroiditis described subacute thyroiditis as a most puzzling clinical entity. "My wife had thyroiditis for 2 weeks without any tenderness... So I sent her to an ENT man." The list of misdiagnoses for thyroiditis includes "psychoneurosis" and he quipped, "That's what I thought of my wife." Werner feels that the PBI is an obsolete test and that T4 and T3 are best for screening. Nuclear med man **Richard Warsnick** was asked for his RAI values. Dick replied, "Ten to 45, but I would ignore the lower values except when it is zero... Only the higher values count." Re Lab results: Werner warned, "Remember these are only tests. Let us be guided by our clinical impressions."

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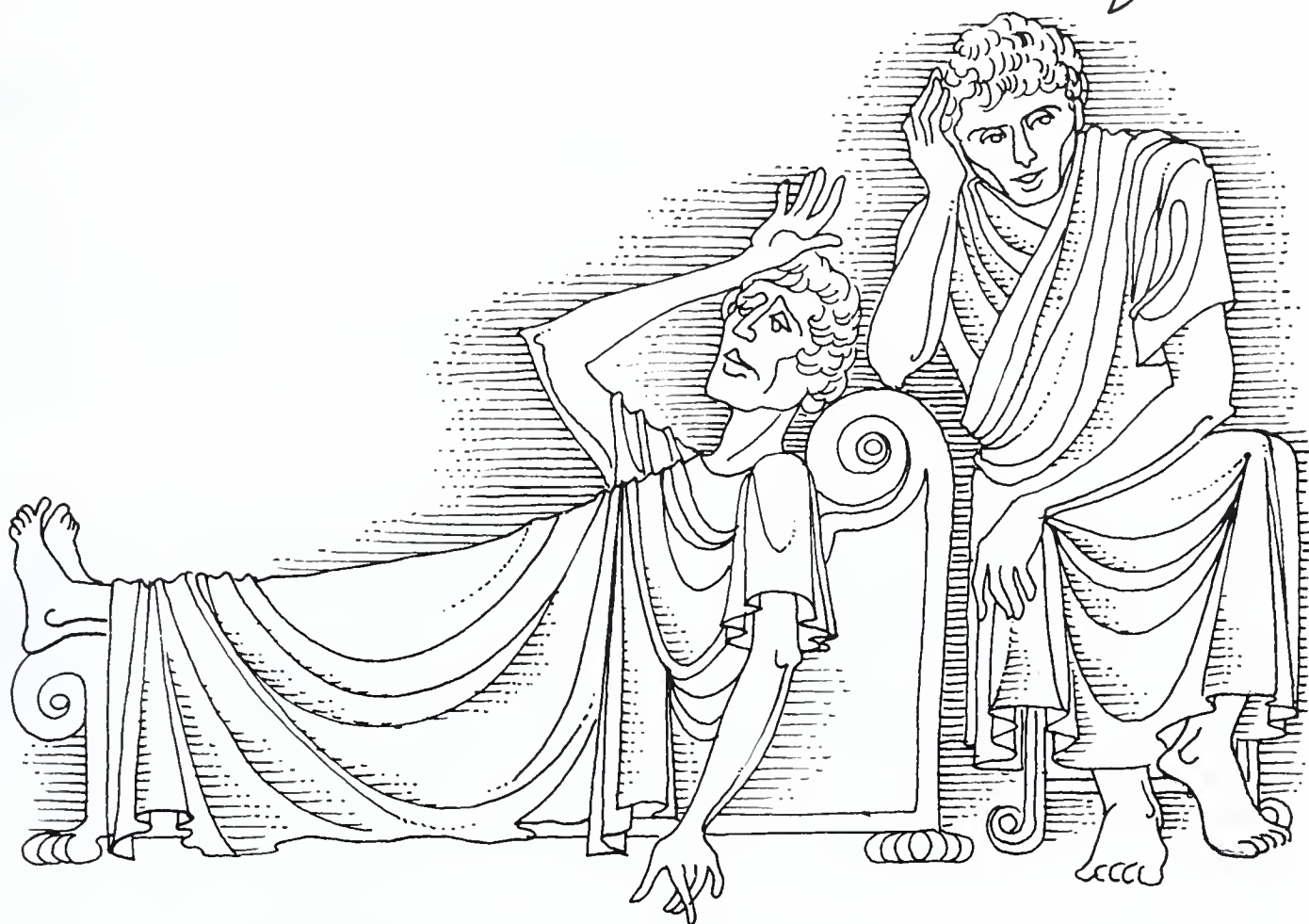
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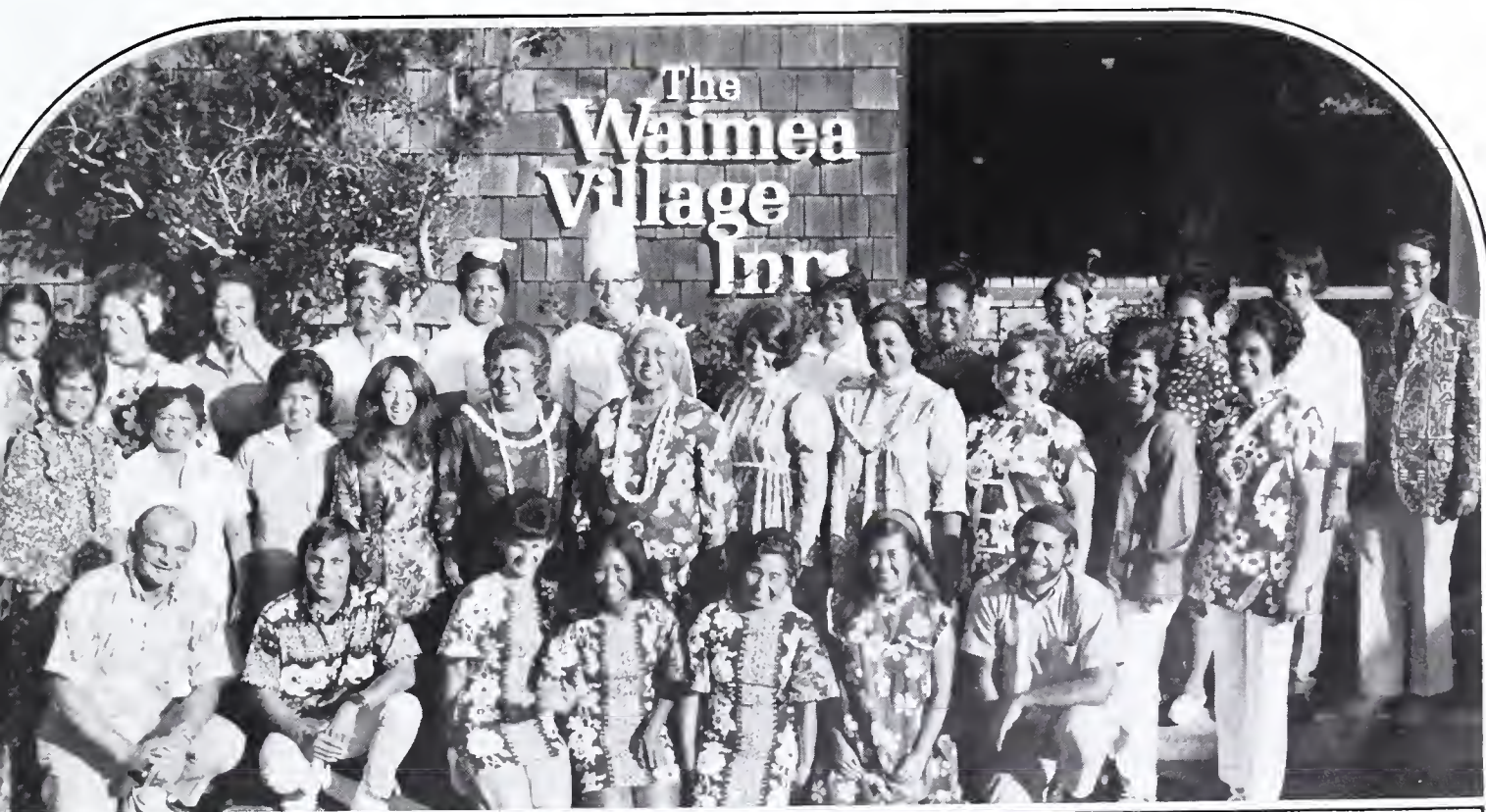
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